FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 13:35:24 ON 26 JUN 2003

L1 127494 S TYPHIMURIUM
L2 20652 S ENTERITIDIS
L3 3269 S CHOLERAESUIS
L4 11026 S DUBLIN
L5 425 S (ABORTUS-OVI OR ABORTUS OVI)
L6 1325 S (ABORTUS-EQUI OR ABORTUS EQUI)
L7 2126 S DERBY
L8 1244 S HADAR
L9 82 S HEIDELBURG
L10 1196 S AGONA
L11 1346 S ARIZONAE
L12 266158 S SALMONELLA
L13 1601739 S (KNOCK-OUT OR KNOCKOUT OR DELETION OR INSERTIONAL MUTANT OR I
L14 3603403 S (VACCIN? OR INJECT? OR IMMUNIZ?)
L15 16645 S L14 AND L1
L16 11223 DUP REM L15 (5422 DUPLICATES REMOVED)
L17 5970 S L16 AND L13
L18 3 S L17 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L19 54 S L17 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L20 54 DUP REM L19 (0 DUPLICATES REMOVED)
L21 3273 S L2 AND L14
L22 1894 DUP REM L21 (1379 DUPLICATES REMOVED)
L23 603 S L21 AND L13
L24 0 S L23 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L25 7 S L23 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L26 6 DUP REM L25 (1 DUPLICATE REMOVED)
L27 702 S L3 AND L14
L28 526 DUP REM L27 (176 DUPLICATES REMOVED)
L29 149 S L28 AND L13
L30 0 S L29 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L31 5 S L29 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L32 5 DUP REM L31 (0 DUPLICATES REMOVED)
L33 1743 S L4 AND L14
L34 1220 DUP REM L33 (523 DUPLICATES REMOVED)
L35 373 S L34 AND L13
L36 0 S L35 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L37 8 S L35 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L38 8 DUP REM L37 (0 DUPLICATES REMOVED)
L39 181 S L5 AND L14
L40 144 DUP REM L39 (37 DUPLICATES REMOVED)
L41 26 S L40 AND L13
L42 0 S L41 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L43 1 S L41 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGEL
L44 464 S L6 AND L14
L45 299 DUP REM L44 (165 DUPLICATES REMOVED)
L46 58 S L45 AND L13
L47 0 S L46 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L48 1 S L46 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L49 145 S L7 AND L14
L50 138 DUP REM L49 (7 DUPLICATES REMOVED)
L51 23 S L50 AND L13
L52 0 S L51 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L53 2 S L51 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L54 46 S L8 AND L14
L55 36 DUP REM L54 (10 DUPLICATES REMOVED)
L56 17 S L55 AND L13
L57 0 S L56 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L58 2 S L56 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L59 33 S L9 AND L14
L60 33 DUP REM L59 (0 DUPLICATES REMOVED)
L61 17 S L60 AND L13
L62 0 S L61 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)

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L63           1 S L61 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L64          44 S L10 AND L14
L65          34 DUP REM L64 (10 DUPLICATES REMOVED)
L66           8 S L65 AND L13
L67           0 S L66 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L68           2 S L66 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L69          79 S L11 AND L14
L70          51 DUP REM L69 (28 DUPLICATES REMOVED)
L71          15 S L70 AND L13
L72           0 S L71 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L73           4 S L71 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L74       24459 S TYPHI
L75        6067 S L74 AND L14
L76        4190 DUP REM L75 (1877 DUPLICATES REMOVED)
L77        1180 S L76 AND L13
L78           1 S L77 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L79          16 S L77 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L80          16 DUP REM L79 (0 DUPLICATES REMOVED)
L81        5656 S PARATYPHI
L82        1075 S L81 AND L14
L83         946 DUP REM L82 (129 DUPLICATES REMOVED)
L84           0 S L83 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L85           2 S L83 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL

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(FILE 'HOME' ENTERED AT 10:35:00 ON 26 JUN 2003)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 10:35:17 ON 26 JUN 2003

L1 2459 S (FORMALIN KILLED OR FORMALIN KILLED)
L2 215131 S INACTIVATED
L3 266070 S SALMONELLA
L4 27 S L1 AND L2 AND L3
L5 25 S L4 AND (VACCINAT? OR IMMUNIZ? OR INJECT?)
L6 1 S L5 AND (NONMOTILE OR AFLAGELLAR OR NONFLAGELLAR OR FLAGELLA-
L7 11 S L5 AND (DELETION OR GENE DISRUPTION OR MUTANT OR MUTATION)
L8 4 S L7 AND FLAGELLIN

=>

L26 ANSWER 1 OF 6 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:130010 USPATFULL
TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
IN Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6562958 B1 20030513
AI US 1999-328352 19990604 (9)
PRAI US 1998-88701P 19980609 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Borin, Michael
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 16618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 2 OF 6 USPATFULL
AB The present invention relates generally to the field of microbiology and food sciences. More particularly, the inventor has discovered several polynucleotide sequences encoding the gnd gene and corresponding 6-phosphogluconate dehydrogenase (6-PGD) proteins from different strains of Escherichia Coli and polymorphic sequences therein. Novel biotechnological tools, diagnostics, and food screening techniques are provided.
AN 2002:272781 USPATFULL
TI Polymorphic loci that differentiate escherichia coli 0157:H7 from other strains
IN Tarr, Phillip I., Seattle, WA, UNITED STATES
PI US 2002150902 A1 20021017
AI US 2001-875573 A1 20010605 (9)
RLI Continuation of Ser. No. WO 1999-US29149, filed on 8 Dec 1999, UNKNOWN
PRAI US 1998-111493P 19981208 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 3813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 3 OF 6 USPATFULL
AB The present invention relates to Salmonella bacteria for use as a **vaccine**. The invention also relates to **vaccines** based thereon that are useful for the prevention of microbial pathogenesis. Further, the invention relates to the use of such bacteria or the manufacture of such **vaccines**. Finally, the invention relates to methods for the preparation of such **vaccines**.
AN 2001:155455 USPATFULL
TI Salmonella **vaccine**
IN Nuijten, Petrus Johannes Maria, Boxmeer, Netherlands
Witvliet, Maarten Hendrik, Oostrum, Netherlands

PI US 2001021386 A1 20010913
AI US 2000-749025 A1 20001227 (9)
PRAI EP 1999-204564 19991228
DT Utility
FS APPLICATION
LREP William M. Blackstone, Akzo nobel Patent Department, Suite 206, 1300 Piccard Drive, Rockville, MD, 20850
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 745
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 4 OF 6 USPATFULL
AB The present invention is directed to recombinant genes and their encoded proteins which are recombinant flagellin fusion proteins. Such fusion proteins comprise amino acid sequences specifying an epitope encoded by a flagellin structural gene and an epitope of a heterologous organism which is immunogenic upon introduction of the fusion protein into a vertebrate host. The recombinant genes and proteins of the present invention can be used in **vaccine** formulations, to provide protection against infection by the heterologous organism, or to provide protection against conditions or disorders caused by an antigen of the organism. In a specific embodiment, attenuated invasive bacteria expressing the recombinant flagellin genes of the invention can be used in live **vaccine** formulations. The invention is illustrated by way of examples in which epitopes of malaria circumsporozoite antigens, the B subunit of Cholera toxin, surface and presurface antigens of Hepatitis B. VP7 polypeptide of rotavirus, envelope glycoprotein of HIV, and M protein of Streptococcus, are expressed in recombinant flagellin fusion proteins which assemble into functional flagella, and which provoke an immune response directed against the heterologous epitope, in a vertebrate host.
AN 2000:134749 USPATFULL
TI Recombinant flagellin **vaccines**
IN Majarian, William R., Mt. Royal, NJ, United States
Stocker, Bruce A. D., Palo Alto, CA, United States
Newton, Salete M. C., Mountain View, CA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
The Board of Trustees of the Leland Stanford Junior University, Stanford, CA, United States (U.S. corporation)
PI US 6130082 20001010
AI US 1992-837668 19920214 (7)
RLI Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Hamilton, Brook, Smith & Reynolds, P.C.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 5 OF 6 USPATFULL
AB A growth supplement for bacterial media is used to induce and/or maintain differentiation and viability of bacterial cell cultures. The supplement contains about 10 mM to about 100 mM of a sugar, an amino acid or mixtures thereof. When the media used does not contain iron and reducing agents, such as sodium thiosulfate, these are included in the supplement. The reducing agent is present preferably at about 20 to about 40 mM. The addition of this supplement results in flagellation of

aflagellate variants of Salmonella and hyperflagellation of variants of Salmonella which are flagellated.

AN 1999:56414 USPATFULL

TI Complex growth supplement for maintenance of bacterial cell viability and induction of bacterial cell differentiation

IN Petter, Jean Guard, Athens, GA, United States
Ingram, Kim D., Watkinsville, GA, United States

PA The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)

PI US 5902742 19990511

AI US 1996-649501 19960517 (8)

DT Utility

FS Granted

EXNAM Primary Examiner: Lankford, Jr., Leon B.; Assistant Examiner: Tate, Christopher R.

LREP Silverstein, M. Howard, Fado, John, Poulos, Gail E.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 17 Drawing Figure(s); 14 Drawing Page(s)

LN.CNT 847

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 6 OF 6 MEDLINE DUPLICATE 1

AB Methods of immunoprophylaxis for poultry using live Salmonella **vaccines** are increasingly gaining in importance. Methods of a simple and reliable bacteriological as well as serological differentiation between **vaccine** and field strains will be of decisive importance for the acceptance and use of live Salmonella **vaccines**. The absence of motility in Salmonella strains may be a marker fulfilling these criteria. The studies described served to examine whether virulence and the ability to inhibit other Salmonella strains could be influenced by the absence of motility in Salmonella (S.) **Enteritidis** and (S.) Typhimurium. In a cell-culture model (IEC 6) under in vitro conditions, **non-motile** transposon **mutants** (TnphoA) of S. **Enteritidis** and S. Typhimurium exhibited a clearly reduced invasion potential in comparison with the respective motile parental strain. Under in vitro conditions (nutrient broth culture), the inhibitory potential of these **non-motile** **mutants** was also reduced compared to the motile original strains. In contrast, in vivo studies in a-few-days-old chickens revealed that there was no reduction of the virulence of **non-motile** **mutants** of S. **Enteritidis** and S. Typhimurium in comparison with the motile parental strain. In day-old chicks, the inhibitory potential of **non-motile** strains was significantly reduced and in some cases, had even become completely lost.

AN 1998027408 MEDLINE

DN 98027408 PubMed ID: 10084946

TI [Significance of motility of Salmonella **enteritidis** and Salmonella typhimurium as a virulence factor and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens]. Zur Bedeutung der Beweglichkeit von Salmonella **Enteritidis** und Salmonella Typhimurium als Virulenzfaktor und fur die Auspragung des Hemmphanomens in vitro und in vivo bei SPF-Huhnerkuken.

AU Methner U; Barrow P A

CS Bundesinstitut fur gesundheitlichen Verbraucherschutz und Veterinarmedizin, Fachbereich Jena.

SO BERLINER UND MUNCHENER TIERARZTLICHE WOCHENSCHRIFT, (1997 Oct) 110 (10) 391-6.
Journal code: 0003163. ISSN: 0005-9366.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA German

FS Priority Journals

EM 199903

ED Entered STN: 19990326
Last Updated on STN: 19990326
Entered Medline: 19990312

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L58 ANSWER 1 OF 2 USPATFULL

AB A **vaccine** for protecting birds against infection by avian pathogenic gram negative microbes is disclosed. The **vaccine** is a recombinant Salmonella strain expressing O-antigen of an avian pathogenic gram negative microbe such as an E. coli strain that is pathogenic in poultry. The recombinant Salmonella strain also does not express Salmonella O-antigen. Methods of using the **vaccine** to **immunize** birds are also disclosed.

AN 2002:129534 USPATFULL

TI Live attenuated salmonella **vaccines** to control avian pathogens

IN Roland, Kenneth L., St. Louis, MO, United States

PA Megan Health, Inc., St. Louis, MO, United States (U.S. corporation)

PI US 6399074 B1 20020604

AI US 1998-122441 19980724 (9)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Schwartzman, Robert A.; Assistant Examiner: Beckerleg, Anne Marie S.

LREP Howell & Haferkamp

CLMN Number of Claims: 30

ECL Exemplary Claim: 1

DRWN 7 Drawing Figure(s); 5 Drawing Page(s)

LN.CNT 1594

95 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2003 ACS

AB The authors disclose the use of Salmonella selected for altered or absent expression of flagella. The expression of flagella-neg. (fla-) bacteria was induced by chem. mutagenesis with trioxalen. In one example, oral **vaccination** with flagella-neg. bacteria provided **protection** against challenge with wild-type Salmonella.

AN 2001:488585 CAPLUS

DN 135:75739

TI Salmonella **vaccine** not inducing antibodies against flagellin or flagella

IN Nuijten, Petrus Johannes Maria; Witvliet, Maarten Hendrik

PA Akzo Nobel N.V., Neth.

SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1112747	A1	20010704	EP 2000-204630	20001219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001186874	A2	20010710	JP 2000-387225	20001220
	US 2001021386	A1	20010913	US 2000-749025	20001227
	BR 2000006291	A	20011127	BR 2000-6291	20001227
PRAI	EP 1999-204564	A	19991228		

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

38 ANSWER 1 OF 8 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:130010 USPATFULL
TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
IN Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6562958 B1 20030513
AI US 1999-328352 19990604 (9)
PRAI US 1998-88701P 19980609 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Borin, Michael
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 16618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 2 OF 8 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2003:60089 USPATFULL
TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6528289 B1 20030304
AI US 2000-643990 20000823 (9)
RLI Continuation of Ser. No. US 1995-487429, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Martinell, James
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4428
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 3 OF 8 USPATFULL

AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.

AN 2003:13200 USPATFULL

TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof

IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States

PA Human Genome Science, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

PI US 6506581 B1 20030114

AI US 2000-557884 20000425 (9)

RLI Continuation of Ser. No. US 1995-476102, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned

DT Utility

FS GRANTED

EXNAM Primary Examiner: Brusca, John S.

LREP Human Genome Sciences, Inc.

CLMN Number of Claims: 51

ECL Exemplary Claim: 1

DRWN 47 Drawing Figure(s); 47 Drawing Page(s)

LN.CNT 4510

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 4 OF 8 USPATFULL

AB The present invention relates generally to the field of microbiology and food sciences. More particularly, the inventor has discovered several polynucleotide sequences encoding the gnd gene and corresponding 6-phosphogluconate dehydrogenase (6-PGD) proteins from different strains of Escherichia Coli and polymorphic sequences therein. Novel biotechnological tools, diagnostics, and food screening techniques are provided.

AN 2002:272781 USPATFULL

TI Polymorphic loci that differentiate escherichia coli 0157:H7 from other strains

IN Tarr, Phillip I., Seattle, WA, UNITED STATES

PI US 2002150902 A1 20021017

AI US 2001-875573 A1 20010605 (9)

RLI Continuation of Ser. No. WO 1999-US29149, filed on 8 Dec 1999, UNKNOWN

PRAI US 1998-111493P 19981208 (60)

DT Utility

FS APPLICATION

LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660

CLMN Number of Claims: 28

ECL Exemplary Claim: 1

DRWN 3 Drawing Page(s)

LN.CNT 3813

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 5 OF 8 USPATFULL

AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO: 1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2002:50802 USPATFULL
TI Computer readable genomic sequence of Haemophilus influenzae Rd, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6355450 B1 20020312
AI US 1995-476102 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Campell, Bruce R.
CLMN Number of Claims: 88
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 6 OF 8 USPATFULL
AB The present invention relates to Salmonella bacteria for use as a **vaccine**. The invention also relates to **vaccines** based thereon that are useful for the prevention of microbial pathogenesis. Further, the invention relates to the use of such bacteria or the manufacture of such **vaccines**. Finally, the invention relates to methods for the preparation of such **vaccines**.
AN 2001:155455 USPATFULL
TI Salmonella **vaccine**
IN Nuijten, Petrus Johannes Maria, Boxmeer, Netherlands
Witvliet, Maarten Hendrik, Oostrum, Netherlands
PI US 2001021386 A1 20010913
AI US 2000-749025 A1 20001227 (9)
PRAI EP 1999-204564 19991228
DT Utility
FS APPLICATION
LREP William M. Blackstone, Akzo nobel Patent Department, Suite 206, 1300 Piccard Drive, Rockville, MD, 20850
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 745
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 7 OF 8 USPATFULL
AB The present invention is directed to recombinant genes and their encoded proteins which are recombinant flagellin fusion proteins. Such fusion proteins comprise amino acid sequences specifying an epitope encoded by a flagellin structural gene and an epitope of a heterologous organism which is immunogenic upon introduction of the fusion protein into a vertebrate host. The recombinant genes and proteins of the present invention can be used in **vaccine** formulations, to provide

protection against infection by the heterologous organism, or to provide protection against conditions or disorders caused by an antigen of the organism. In a specific embodiment, attenuated invasive bacteria expressing the recombinant flagellin genes of the invention can be used in live **vaccine** formulations. The invention is illustrated by way of examples in which epitopes of malaria circumsporozoite antigens, the B subunit of Cholera toxin, surface and presurface antigens of Hepatitis B. VP7 polypeptide of rotavirus, envelope glycoprotein of HIV, and M protein of Streptococcus, are expressed in recombinant flagellin fusion proteins which assemble into functional flagella, and which provoke an immune response directed against the heterologous epitope, in a vertebrate host.

AN 2000:134749 USPATFULL
TI Recombinant flagellin **vaccines**
IN Majarian, William R., Mt. Royal, NJ, United States
Stocker, Bruce A. D., Palo Alto, CA, United States
Newton, Salete M. C., Mountain View, CA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
The Board of Trustees of the Leland Stanford Junior University, Stanford, CA, United States (U.S. corporation)
PI US 6130082 20001010
AI US 1992-837668 19920214 (7)
RLI Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Hamilton, Brook, Smith & Reynolds, P.C.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L38 ANSWER 8 OF 8 USPATFULL

AB A growth supplement for bacterial media is used to induce and/or maintain differentiation and viability of bacterial cell cultures. The supplement contains about 10 mM to about 100 mM of a sugar, an amino acid or mixtures thereof. When the media used does not contain iron and reducing agents, such as sodium thiosulfate, these are included in the supplement. The reducing agent is present preferably at about 20 to about 40 mM. The addition of this supplement results in flagellation of aflagellate variants of Salmonella and hyperflagellation of variants of Salmonella which are flagellated.

AN 1999:56414 USPATFULL
TI Complex growth supplement for maintenance of bacterial cell viability and induction of bacterial cell differentiation
IN Petter, Jean Guard, Athens, GA, United States
Ingram, Kim D., Watkinsville, GA, United States
PA The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)
PI US 5902742 19990511
AI US 1996-649501 19960517 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Lankford, Jr., Leon B.; Assistant Examiner: Tate, Christopher R.
LREP Silverstein, M. Howard, Fado, John, Poulos, Gail E.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 847
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

L80 ANSWER 1 OF 16 USPATFULL
AB The invention provides ginS polypeptides and, polynucleotides encoding ginS polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are methods for utilizing ginS polypeptides to screen for antibacterial compounds.
AN 2003:120803 USPATFULL
TI ginS
IN Burgess, Nicola A., Lichfield, UNITED KINGDOM
Garcia, Miguel M. Camara, Chesterfield, UNITED KINGDOM
Kirke, David F., Kimberley, UNITED KINGDOM
Meyers, Nicholas L., Huntingdon, UNITED KINGDOM
Williams, Paul, Kimberley, UNITED KINGDOM
PI US 2003083287 A1 20030501
AI US 2001-998279 A1 20011130 (9)
PRAI US 2000-250288P 20001130 (60)
DT Utility
FS APPLICATION
LREP Edward R. Gimmi, SmithKline Beecham Corporation, Corporate Intellectual Property -U.S., UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 2634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 2 OF 16 USPATFULL
AB The invention relates to the identification and isolation of a novel sigma 54 (.sigma..sup.54) transcription factor from Vibrio harveyi. The invention further relates to the identification of .sigma..sup.54 interactions with LuxO. More particularly, the invention provides methods for identifying compounds that regulate bacterial cell growth and virulence by regulating LuxO-.sigma..sup.54 activities.
AN 2003:31081 USPATFULL
TI LuxO-sigma54 interactions and methods of use
IN Bassler, Bonnie L., Princeton, NJ, UNITED STATES
Lilley, Brendan N., Boston, MA, UNITED STATES
PI US 2003023032 A1 20030130
AI US 2001-853257 A1 20010510 (9)
PRAI US 2000-202999P 20000510 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660
CLMN Number of Claims: 53
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 2218
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 3 OF 16 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived Enterococcus faecium that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:169096 USPATFULL
TI Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
IN Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6583275 B1 20030624

AI US 1998-107532 19980630 (9)
PRAI US 1998-85598P 19980514 (60)
US 1997-51571P 19970702 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 15265

L80 ANSWER 4 OF 16 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:130010 USPATFULL
TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
IN Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6562958 B1 20030513
AI US 1999-328352 19990604 (9)
PRAI US 1998-88701P 19980609 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Borin, Michael
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 16618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 5 OF 16 USPATFULL
AB The present invention relates generally to the field of microbiology and food sciences. More particularly, the inventor has discovered several polynucleotide sequences encoding the gnd gene and corresponding 6-phosphogluconate dehydrogenase (6-PGD) proteins from different strains of Escherichia Coli and polymorphic sequences therein. Novel biotechnological tools, diagnostics, and food screening techniques are provided.
AN 2002:272781 USPATFULL
TI Polymorphic loci that differentiate escherichia coli 0157:H7 from other strains
IN Tarr, Phillip I., Seattle, WA, UNITED STATES
PI US 2002150902 A1 20021017
AI US 2001-875573 A1 20010605 (9)
RLI Continuation of Ser. No. WO 1999-US29149, filed on 8 Dec 1999, UNKNOWN
PRAI US 1998-111493P 19981208 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 3813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 6 OF 16 USPATFULL

AB The present invention provides a polypeptide, called EspA, which is secreted by pathogenic E. coli, such as the enteropathogenic (EPEC) and enterohemorrhagic (EHEC) E. coli. The invention also provides isolated nucleic acid sequences encoding EspA polypeptide, EspA peptides, a recombinant method for producing recombinant EspA, antibodies which bind to EspA, and a kit for the detection of EspA-producing E. coli.

AN 2002:214437 USPATFULL

TI Pathogenic escherichia coli associated protein

IN Finlay, B. Brett, Richmond, CANADA
Kenny, Brendan, Bristol, UNITED KINGDOM
Stein, Markus, Quercegrossa, ITALY
Donnenberg, Michael S., Baltimore, MD, UNITED STATES
Lai, Li-Ching, Upper Arlington, OH, UNITED STATES

PI US 2002115829 A1 20020822

AI US 2001-967347 A1 20010928 (9)

RLI Division of Ser. No. US 1999-171517, filed on 10 Aug 1999, PATENTED A 371 of International Ser. No. WO 1997-CA265, filed on 23 Apr 1997, UNKNOWN

PRAI US 1996-15999P 19960423 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

CLMN Number of Claims: 39

ECL Exemplary Claim: 1

DRWN 8 Drawing Page(s)

LN.CNT 2259

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 7 OF 16 USPATFULL

AB The present invention provides the EspA polypeptide, which is secreted by pathogenic E coli, such as the enteropathogenic (EPEC) and enterohemorrhagic (EHEC) E coli. Diagnosis of disease caused by such pathogenic E coli can be performed by standard techniques, such as those based upon the use of antibodies which bind to EspA to detect the protein, as well as those based on the use of nucleic acid probes for detection of nucleic acids encoding EspA protein. The invention also provides isolated nucleic acid sequences encoding EspA, EspA polypeptide, EspA peptides, a method for producing recombinant EspA, antibodies which bind to EspA, and a kit for the detection of EspA-producing E coli. The invention also provides a method of **immunizing** a host with EspA to induce a protective immune response to EspA.

AN 2002:50620 USPATFULL

TI Pathogenic Escherichia coli associated protein EspA

IN Finlay, B. Brett, Richmond, CANADA
Kenny, Brendan, Redland, UNITED KINGDOM
Stein, Markus, Quercegrossa, ITALY
Donnenberg, Michael S., Baltimore, MD, United States
Lai, Li-Ching, Upper Arlington, OH, United States

PA University of British Columbia, Vancouver, CANADA (non-U.S. corporation)

PI US 6355254 B1 20020312
WO 9740063 19971030

AI US 1999-171517 19990810 (9)
WO 1997-CA265 19970423
19990810 PCT 371 date

PRAI US 1996-15999P 19960423 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Graser, Jennifer E.

LREP SEED Intellectual Property Law Group PLLC

CLMN Number of Claims: 5

ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2147
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 8 OF 16 USPATFULL
AB The present invention relates to Salmonella bacteria for use as a **vaccine**. The invention also relates to **vaccines** based thereon that are useful for the prevention of microbial pathogenesis. Further, the invention relates to the use of such bacteria or the manufacture of such **vaccines**. Finally, the invention relates to methods for the preparation of such **vaccines**.
AN 2001:155455 USPATFULL
TI Salmonella **vaccine**
IN Nuijten, Petrus Johannes Maria, Boxmeer, Netherlands
Witvliet, Maarten Hendrik, Oostrum, Netherlands
PI US 2001021386 A1 20010913
AI US 2000-749025 A1 20001227 (9)
PRAI EP 1999-204564 19991228
DT Utility
FS APPLICATION
LREP William M. Blackstone, Akzo nobel Patent Department, Suite 206, 1300 Piccard Drive, Rockville, MD, 20850
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 745
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 9 OF 16 USPATFULL
AB The present invention is directed to recombinant genes and their encoded proteins which are recombinant flagellin fusion proteins. Such fusion proteins comprise amino acid sequences specifying an epitope encoded by a flagellin structural gene and an epitope of a heterologous organism which is immunogenic upon introduction of the fusion protein into a vertebrate host. The recombinant genes and proteins of the present invention can be used in **vaccine** formulations, to provide protection against infection by the heterologous organism, or to provide protection against conditions or disorders caused by an antigen of the organism. In a specific embodiment, attenuated invasive bacteria expressing the recombinant flagellin genes of the invention can be used in live **vaccine** formulations. The invention is illustrated by way of examples in which epitopes of malaria circumsporozoite antigens, the B subunit of Cholera toxin, surface and presurface antigens of Hepatitis B. VP7 polypeptide of rotavirus, envelope glycoprotein of HIV, and M protein of Streptococcus, are expressed in recombinant flagellin fusion proteins which assemble into functional flagella, and which provoke an immune response directed against the heterologous epitope, in a vertebrate host.
AN 2000:134749 USPATFULL
TI Recombinant flagellin **vaccines**
IN Majarian, William R., Mt. Royal, NJ, United States
Stocker, Bruce A. D., Palo Alto, CA, United States
Newton, Salete M. C., Mountain View, CA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
The Board of Trustees of the Leland Stanford Junior University, Stanford, CA, United States (U.S. corporation)
PI US 6130082 20001010
AI US 1992-837668 19920214 (7)
RLI Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned
DT Utility
FS Granted

EXNAM Primary Examiner: Mosher, Mary E.
LREP Hamilton, Brook, Smith & Reynolds, P.C.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 10 OF 16 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia and to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.
AN 2000:77033 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio G., Newbury Park, CA, United States
Sadziene, Adriadna, San Antonio, TX, United States
PA The University of Texas System, Board of Regents, Austin, TX, United States (U.S. corporation)
PI US 6077515 20000620
AI US 1996-696372 19960813 (8)
RLI Continuation of Ser. No. US 1993-124290, filed on 20 Sep 1993, now patented, Pat. No. US 5585102, issued on 17 Dec 1996 which is a continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991, now patented, Pat. No. US 5436000, issued on 25 Jul 1995
DT Utility
FS Granted
EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Ryan, V.
LREP Arnold White & Durkee
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1355

L80 ANSWER 11 OF 16 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure

preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.

AN 96:116113 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio G., Newbury Park, CA, United States
Sadziene, Adriadna, San Antonio, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5585102 19961217
AI US 1993-124290 19930920 (8)
RLI Continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991
DT Utility
FS Granted
EXNAM Primary Examiner: Sidberry, Hazel F.
LREP Arnold, White & Durkee
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1434

L80 ANSWER 12 OF 16 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia and to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less** **mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.
AN 95:66995 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio, San Antonio, TX, United States
PA University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5436000 19950725
AI US 1991-641143 19910111 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Sidberry, Hazel F.
LREP Arnold, White & Durkee
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 23 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1300

L80 ANSWER 13 OF 16 USPATFULL
AB The gene encoding the TcpA pilus has been cloned. It encodes a protein useful in live, killed-cell, and synthetic **vaccines**. Protein production is enhanced by specific medium conditions.
AN 94:62217 USPATFULL
TI Cholera **vaccines**
IN Mekalanos, John J., Cambridge, MA, United States
Taylor, Ronald K., Memphis, TN, United States
PA President and Fellows of Harvard College, Cambridge, MA, United States

(U.S. corporation)
PI US 5330753 19940719
AI US 1992-855809 19920323 (7)
RLI Continuation of Ser. No. US 1988-188016, filed on 29 Apr 1988, now patented, Pat. No. US 5098998 which is a continuation-in-part of Ser. No. US 1987-43907, filed on 29 Apr 1987, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Cunningham, T.
LREP Fish & Richardson
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 613
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 14 OF 16 USPATFULL
AB The gene encoding the TcpA pilus has been cloned. It encodes a protein useful in live, killed-cell, and synthetic **vaccines**. Protein production is enhanced by specific medium conditions.
AN 92:23282 USPATFULL
TI Cholera **vaccines** and peptides
IN Mekalanos, John J., Framingham, MA, United States
Taylor, Ronald K., Memphis, TN, United States
PA President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation)
PI US 5098998 19920324
AI US 1988-188016 19880429 (7)
RLI Continuation-in-part of Ser. No. US 1987-43907, filed on 29 Apr 1987, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Cunningham, T.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 609
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L80 ANSWER 15 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB A total of 21 cases of laboratory-acquired typhoid fever associated with teaching and proficiency tests occurred in the USA during a 33-mo. period, prompting a search for less virulent strains of S. **typhi** which would be suitable for teaching purposes. Two strains were evaluated which are reported to have reduced virulence for humans if grown under special laboratory conditions (in the presence of 0.1% D-galactose) and has been evaluated as a candidate for use as a live, oral **vaccine**. Strain H901 was originally isolated in the USSR in 1981. It has not been tested in humans, but its **nonmotile** variant, 0901, has been found to be somewhat less virulent for humans; however, it can cause infection with doses of 107 organisms. In teaching exercises, all strains should be treated as though they are fully virulent. Ty21a and H901 were satisfactory, but not ideal, for teaching purposes. Biochemically, they could be identified by conventional tests and by commercially available diagnostic systems, although Ty21 was H2S negative. Serologically, both strains posed problems. Both Ty21a and H901 were Vi antigen negative, and Ty21a was rough and grew poorly. Both strains were susceptible to antibiotics, including chloramphenicol, ampicillin and trimethoprim-sulfamethoxazole. When Ty21a and H901 were mixed with Escherichia coli and plated, Hektoen and Salmonella-Shigella agars were most useful for their recovery. The appearance of Ty21a and H901 on differential plating media was typical, although Ty21a had smaller

colonies. The plating efficiency on MacConkey agar for Ty21a was 0.6 compared with 1 for H901. Neither strain can be recommended unequivocally for teaching purposes; instead, the advantages and disadvanges of each must be considered. Both strains have been deposited in the American Type Culture Collection (Ty21a = ATCC 33459 = CDC 2861-79; H901 = ATCC 33458 = CDC 2862-79).

AN 1983:177053 BIOSIS
DN BA75:27053
TI EVALUATION OF 2 SALMONELLA-**TYPHI** STRAINS WITH REDUCED VIRULENCE FOR USE IN TEACHING AND PROFICIENCY TESTING.
AU HICKMAN F W; RHODEN D L; ESAIAS A O; BARON L S; BRENNER D J; FARMER J J III
CS ENTERIC SECTION, CENT. INFECTIOUS DISEASES, CENT. DISEASE CONTROL, ATLANTA, GEORGIA 30333.
SO J CLIN MICROBIOL, (1982) 15 (6), 1085-1091.
CODEN: JCMIDW. ISSN: 0095-1137.
FS BA; OLD
LA English

L80 ANSWER 16 OF 16 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB A controlled field trial was performed in Egypt to evaluate a whole cell typhoid **vaccine** prepared with a **nonmotile mutant** of S. **typhi** Ty2 (TNM1) devoid of flagellar antigen. This **vaccine** did not elicit an H antibody response, but significant Vi and O agglutinin responses were observed. There were 34 typhoid cases among 21,063 6-7-yr-old children who received the TNM1 **vaccine**, and 44 cases among 21,017 children in the control group who received tetanus toxoid. TNM1 **vaccine** probably does not provide protection against typhoid fever. H antigen may be an important component of an effective **vaccine**.
AN 1976:172204 BIOSIS
DN BA62:2204
TI CONTROLLED FIELD TRIAL OF A TYPHOID **VACCINE** PREPARED WITH A **NONMOTILE MUTANT** OF SALMONELLA-**TYPHI** TY-2.
AU WAHDAN M H; SIPPEL J E; MIKHAIL I A; RAHKA A E; ANDERSON E S; SPARKS H A; CVJETANOVIC B
SO BULL W H O, (1975 (RECD 1976)) 52 (1), 69-73.
CODEN: BWHOA6. ISSN: 0366-4996.
FS BA; OLD
LA Unavailable

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(FILE 'HOME' ENTERED AT 13:34:55 ON 26 JUN 2003)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 13:35:24 ON 26 JUN 2003

L1 127494 S TYPHIMURIUM
L2 20652 S ENTERITIDIS
L3 3269 S CHOLERAESUIS
L4 11026 S DUBLIN
L5 425 S (ABORTUS-OVI OR ABORTUS OVI)
L6 1325 S (ABORTUS-EQUI OR ABORTUS EQUI)
L7 2126 S DERBY
L8 1244 S HADAR
L9 82 S HEIDELBURG
L10 1196 S AGONA
L11 1346 S ARIZONAE
L12 266158 S SALMONELLA
L13 1601739 S (KNOCK-OUT OR KNOCKOUT OR DELETION OR INSERTIONAL MUTANT OR I
L14 3603403 S (VACCIN? OR INJECT? OR IMMUNIZ?)
L15 16645 S L14 AND L1
L16 11223 DUP REM L15 (5422 DUPLICATES REMOVED)
L17 5970 S L16 AND L13
L18 3 S L17 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L19 54 S L17 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L20 54 DUP REM L19 (0 DUPLICATES REMOVED)
L21 3273 S L2 AND L14
L22 1894 DUP REM L21 (1379 DUPLICATES REMOVED)
L23 603 S L21 AND L13
L24 0 S L23 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L25 7 S L23 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L26 6 DUP REM L25 (1 DUPLICATE REMOVED)
L27 702 S L3 AND L14
L28 526 DUP REM L27 (176 DUPLICATES REMOVED)
L29 149 S L28 AND L13
L30 0 S L29 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L31 5 S L29 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L32 5 DUP REM L31 (0 DUPLICATES REMOVED)
L33 1743 S L4 AND L14
L34 1220 DUP REM L33 (523 DUPLICATES REMOVED)
L35 373 S L34 AND L13
L36 0 S L35 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L37 8 S L35 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L38 8 DUP REM L37 (0 DUPLICATES REMOVED)
L39 181 S L5 AND L14
L40 144 DUP REM L39 (37 DUPLICATES REMOVED)
L41 26 S L40 AND L13
L42 0 S L41 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L43 1 S L41 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGEL
L44 464 S L6 AND L14
L45 299 DUP REM L44 (165 DUPLICATES REMOVED)
L46 58 S L45 AND L13
L47 0 S L46 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L48 1 S L46 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L49 145 S L7 AND L14
L50 138 DUP REM L49 (7 DUPLICATES REMOVED)
L51 23 S L50 AND L13
L52 0 S L51 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L53 2 S L51 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L54 46 S L8 AND L14
L55 36 DUP REM L54 (10 DUPLICATES REMOVED)
L56 17 S L55 AND L13
L57 0 S L56 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L58 2 S L56 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L59 33 S L9 AND L14
L60 33 DUP REM L59 (0 DUPLICATES REMOVED)

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L61          17 S L60 AND L13
L62           0 S L61 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L63           1 S L61 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L64          44 S L10 AND L14
L65          34 DUP REM L64 (10 DUPLICATES REMOVED)
L66           8 S L65 AND L13
L67           0 S L66 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L68           2 S L66 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L69          79 S L11 AND L14
L70          51 DUP REM L69 (28 DUPLICATES REMOVED)
L71          15 S L70 AND L13
L72           0 S L71 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L73           4 S L71 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L74       24459 S TYPHI
L75        6067 S L74 AND L14
L76        4190 DUP REM L75 (1877 DUPLICATES REMOVED)
L77        1180 S L76 AND L13
L78           1 S L77 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L79          16 S L77 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L80          16 DUP REM L79 (0 DUPLICATES REMOVED)
L81        5656 S PARATYPHI
L82        1075 S L81 AND L14
L83         946 DUP REM L82 (129 DUPLICATES REMOVED)
L84           0 S L83 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L85           2 S L83 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L86         314 S L83 AND  L13
L87           0 S L86 AND (AFLAGELLAR OR AFLAGELATE OR NONFLAGELLAR)
L88           2 S L86 AND (NON-MOTILE OR NONMOTILE OR FLAGELLA-LESS OR FLAGELL
L89          10 S L86 AND FLAGELLIN
L90         328 S L83 AND PROTECTION
L91        1138 S L76 AND PROTECTION
L92        1109 S L91 AND L12
L93        1109 S L92 AND PROTECTION
L94         351 S L82 AND PROTECTION
L95          16 S L70 AND PROTECTION
L96           8 S L66 AND PROTECTION
L97          12 S L60 AND PROTECTION
L98          18 S L65 AND PROTECTION

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10 ANSWER 158 OF 304 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
DUPLICATE 22

AB A mutant strain of **Salmonella** typhimurium, SJW46, has flagellar filaments supercoiled in the same form as the wild-type strain, SJW1103, and swims normally. However, its flagellar filaments are mechanically unstable and show anomalous behaviors of polymorphism. Flagelhn from SJW46 has a large central **deletion** from Ala204 to Lys292 of SJW1103 **flagellin**, which has been thought to be located in the outer surface of the filament. Since the filament structure is determined by intersubunit interactions of the terminal regions in the densely packed core of the filament, no serious involvement of the deleted portion was expected in the filament stability and polymorphism. In order to locate the deleted portion and to understand the underlying mechanism of these anomalous characteristics, we carried out structure analysis of the L-type straight filament reconstituted from a mutant **flagellin** of SJW46 (SJW46S) and compared the structure with that of the SJW1660 filament, which is also the L-type but composed of **flagellin** with no **deletion**. The deleted portion was identified as the outermost subdomain, and the structure in the core region showed no appreciable differences. The structure revealed the previously identified folding of **flagellin** in further detail, and the significance of intersubunit interactions between outer domains, which are present in the SJW1660 filament but absent in the SJW46 filament. This suggests that these contacts have a significant contribution to the filament stability and polymorphic behavior, despite the fact that the contacting surface area occupies only a minor portion of the whole intersubunit interactions.

AN 1999:773 BIOSIS
DN PREV199900000773

TI Role of the outermost subdomain of **Salmonella flagellin** in the filament structure revealed by electron cryomicroscopy.

AU Mimori-Kiyosue, Yuko; Yamashita, Ichiro; Fujiyoshi, Yoshinori; Yamaguchi, Shigeru; Namba, Keiichi (1)
CS (1) Int. Inst. Advanced Res., Matsushita, Electric Ind. Co. Ltd., 3-4 Hikaridai, Seika 619-0237 Japan

SO Journal of Molecular Biology, (Nov. 27, 1998) Vol. 284, No. 2, pp. 521-530.
ISSN: 0022-2836.
DT Article

L6 ANSWER 3 OF 92 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB A synthetic 48-bp oligonucletide specifying the N-terminal 15 amino acids of M protein of Streptococcus pyogenes type 5 (plus a CTA codon, to terminate translation of genes with the insert in reverse orientation) was inserted by blunt-end ligation at the site of the 48-bp EcoRV **deletion** in the **Salmonella flagellin** gene in plasmid pLS408 (S. M. C. Newton, C. O. Jacob, and B. A. D. Stocker, Science 244:70-72, 1989). The resulting plasmid was transferred from Escherichia coli via a restriction-negative **Salmonella** typhimurium strain into an aromatic-compound-dependent, **flagellin** -negative live-vaccine strain of **Salmonella** dublin to produce strain SL7127, which was motile. Expression of the inserted epitope in **flagellin** and its exposure at the flagellar filament surface were shown by immunoblotting and by the reaction of flagellate bacteria (immobilization, immunogold labeling) with antibody raised by **injection** of the corresponding synthetic peptide, S-M5(1-15). Rabbits **immunized** by **injection** of the live-vaccine strain with flagella composed of the chimeric **flagellin** or by **injection** of concentrated flagella from such bacteria developed antibodies reactive in an enzyme-linked immunosorbent assay with peptide S-M5(1-15) and with the large peptic-digest peptide pepM5. These antibodies were opsonic for type 5 streptococci. Mice that were given parenteral live SL7127 (six doses, each 1 .times. 106 to 2 .times. 106, over 8 weeks) developed titers of ca. 12,800 for M5-specific peptides and opsonizing activity for type 5 streptococci but not for type 24 streptococci. Sera from mice similarly **immunized** with a control live vaccine strain without an insert in the **flagellin** gene did not react with the M5-specific antigens. All of the five mice given the control strain, without an insert, died after challenge with type 5 streptococci or type 24 streptococci; by contrast, four of the five mice given strain SL7127, with an insert, survived the M5 challenge, but none of the five challenged with the type 24 strain survived. Therefore, our study shows that an M protein epitope can be expressed in the context of an unrelated protein and maintain its immunogenicity. Furthermore, we demonstrate that mice can be protected against a Streptococcus pyogenes type 5 challenge by **immunization** with a **Salmonella** live vaccine with flagella made of **flagellin** with an insert carrying a protective epitope of M5 protein but without the cross-reactive epitopes of the complete protein.

AN 1991:341594 BIOSIS

DN BA92:40969

TI EXPRESSION AND IMMUNOGENICITY OF A STREPTOCOCCAL M PROTEIN EPITOPE INSERTED IN **SALMONELLA FLAGELLIN**.

AU NEWTON S M C; KOTB M; POIRIER T P; STOCKER B A D; BEACHEY E H

CS DEP. MICROBIOL. IMMMUNOL., STANFORD UNIV. SCH. MED., STANFORD, CALIF. 94350.

SO INFECT IMMUN, (1991) 59 (6), 2158-2165.
CODEN: INFIBR. ISSN: 0019-9567.

FS BA; OLD

LA English

6 ANSWER 6 OF 92 MEDLINE

AB Plasmid pLS408 includes gene fliC(d) specifying **Salmonella flagellin** of antigenic type d with an in vitro **deletion** of a 48 base-pair EcoRV fragment in its central hypervariable antigenically-determinant region IV. Oligonucleotides specifying peptide epitopes of antigens of unrelated pathogens inserted, in correct orientation, at the unique EcoRV site of pLS408 specify chimeric **flagellins** and, in many instances, cause production of functional flagella when the plasmid is placed in a **flagellin**-deficient delta aroA live-vaccine strain of **Salmonella** dublin. The foreign epitope is then exposed at the surface of the flagellar filaments, as shown by the immobilizing effect of anti-epitope antibody and by immunogold electron-microscopy. The live-vaccine strain with a foreign epitope at the surface of its flagella when administered to mice by **injection** nearly always causes production of antibody with affinity for the foreign epitope and, sometimes, also for the source protein. Repeated **injection** of the live vaccine with an epitope of Streptococcus pyogenes type 5 M protein as insert caused production of opsonizing antibody and conferred partial protection against Streptococcus challenge. **Injection** of semi-purified chimeric flagella or **flagellin**, alone or with adjuvant, likewise causes antibody production, in one instance sufficient to give partial protection against influenza A virus challenge. Plasmid pLS408 with some inserts does not confer motility, either because the filaments produced are non-functional or because **flagellin** is made but not assembled or because little or no **flagellin** is produced. The features of a sequence which as insert determine production or non-production of functional flagella are not known. The effect of insertion of known T-cell epitopes and cellular immune responses to epitope inserts in **flagellin** are as yet little explored.

AN 94321840 MEDLINE

DN 94321840 PubMed ID: 7519231

TI Immune responses to epitopes inserted in **Salmonella flagellin**.

AU Stocker B A; Newton S M

CS Department of Microbiology and Immunology, Stanford University School of Medicine, CA 94305-5402.

SO INTERNATIONAL REVIEWS OF IMMUNOLOGY, (1994) 11 (2) 167-78. Ref: 24
Journal code: 8712260. ISSN: 0883-0185.

CY Switzerland

1: J Infect Dis. 1994 Dec;170(6):1508-17. Related Articles, Links

Entrez PubMed

PubMed Services

Related Resources

Cytokine production patterns and lymphoproliferative responses in volunteers orally immunized with attenuated vaccine strains of Salmonella typhi.

Sztein MB, Wasserman SS, Tacket CO, Edelman R, Hone D, Lindberg AA, Levine MM.

Department of Pediatrics, University of Maryland School of Medicine, Baltimore.

New recombinant strains of attenuated Salmonella typhi used as live oral vaccines elicit potent immune responses. This study examined the patterns of cytokine production and proliferation to specific S. typhi antigens in subjects orally immunized with attenuated S. typhi vaccines CVD 906, CVD 908, and CVD 908 expressing the circumsporozoite protein of Plasmodium falciparum. After immunization, sensitized lymphocytes were found in subjects' blood that exhibited significantly increased proliferative responses and interferon-gamma production to purified S. typhi flagella when compared with preimmunization levels. Significant negative correlations were observed between interleukin-4 production and both interferon-gamma production and proliferation to S. typhi flagella. These results demonstrate that oral immunization with attenuated S. typhi strains alone or with those carrying a foreign gene elicits strong systemic cell-mediated immunity to purified S. typhi antigens, including the production of cytokines compatible with T1-type responses.

Publication Types:
- Clinical Trial
- Clinical Trial, Phase II

PMID: 7995991 [PubMed - indexed for MEDLINE]

1: J Clin Invest. 1992 Aug;90(2):412-20. Related Articles, Links

Entrez PubMed

PubMed Services

Related Resources

Evaluation in volunteers of a candidate live oral attenuated Salmonella typhi vector vaccine.

Hone DM, Tacket CO, Harris AM, Kay B, Losonsky G, Levine MM.

Department of Medicine, University of Maryland, Baltimore 21201.

Candidate vector vaccine strain CVD 906 (aroC- and aroD- derivative of virulent Salmonella typhi strain ISP1820) was evaluated in phase 1 clinical trials. The first nine volunteers ingested a single dose of 5 x 10(7) CVD 906 bacilli. At this dose CVD 906 stimulates remarkable systemic and mucosal immune responses, inasmuch as 89% of volunteers developed marked serum antibody levels to S. typhi antigens and high numbers of antigen-specific gut-derived antibody-secreting cells. Four (44%) volunteers developed asymptomatic vaccinemia 4-10 d after immunization and all volunteers excreted CVD 906 on at least one occasion. However, two volunteers developed febrile adverse reactions, one on the day of vaccination and the other on day 4. Of 11 volunteers who ingested a single dose of 5 x 10(3) CVD 906 bacilli, none displayed side effects but 27% developed significant serum responses to S. typhi LPS. In vitro, CVD 906 replicates for only nine generations in pooled human serum, indicating that CVD 906 growth is limited in this physiologically relevant medium. In phorbol myristate acetate-induced U937 human macrophage-like cells, CVD 906 replicates intracellularly to a lesser extent than parent strain ISP1820. Although, strain CVD 906 is attenuated and highly immunogenic, the occasional febrile reactions at high doses indicate that further attenuation of this strain is necessary.

Publication Types:
- Clinical Trial

PMID: 1644914 [PubMed - indexed for MEDLINE]

41 ANSWER 45 OF 79 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 26
AN 96:109713 LIFESCI
TI Attenuated typhoid vaccine Salmonella **typhi** Ty21a: Fingerprinting and quality control
AU McKenna, A.J.; Bygraves, J.A.; Maiden, M.C.J.; Feavers, I.M.*
CS Div. Bacteriology, Natl. Inst. for Biol. Standards and Control, Blanche Lane, South Mimms, Potters Bar, Hertfordshire EN6 3QG, UK
SO MICROBIOLOGY, (1995) vol. 141, no. 8, pp. 1993-2002.
ISSN: 0001-9955.
DT Journal
FS J
LA English
SL English

41 ANSWER 31 OF 79 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 17
AN 1999:84318 LIFESCI
TI Attenuated Delta guaBA Salmonella **typhi** Vaccine Strain CVD 915 as a Live Vector Utilizing Prokaryotic or Eukaryotic Expression Systems to Deliver Foreign Antigens and Elicit Immune Responses
AU Pasetti, M.F.; Anderson, R.J.; Noriega, F.R.; Levine, M.M.; Sztein, M.B.*
CS Center for Vaccine Development, Department of Pediatrics, University of Maryland at Baltimore, 685 West Baltimore St., Room 480, Baltimore, MD 21201, USA; E-mail: msztein@umppa1.ab.umd.edu
SO Clinical Immunology [Clin. Immunol.], (19990700) vol. 92, no. 1, pp. 76-89.
ISSN: 1521-6616.
DT Journal
FS F; W3
LA English
SL English

ANSWER 2 OF 92 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB To identify the major antigenic determinant of native **Salmonella** flagella of antigenic type d, we constructed a series of mutated fliC-d genes with **deletions** and amino acid alterations in hypervariable region IV and in regions of putative epitopes as suggested by epitope mapping with synthetic octameric peptides (T. M. Joys and F. Schodel, Infect. Immun. 59:3330-3332, 1991). The expressed product of most of the mutant genes, with **deletions** of up to 92 amino acids in region IV, assembled into functional flagella and conferred motility on **flagellin**-deficient hosts. Serological analysis of these flagella with different anti-d antibodies revealed that the peptide sequence centered at amino acids 229 to 230 of **flagellin** was a dominant B-cell epitope at the surface of d flagella, because replacement of these two amino acids alone or together with their flanking sequence by a tripeptide specified by a linker sequence eliminated most reactivity with antisera against wild-type d flagella as tested by enzyme-linked immunosorbent assay or by Western immunoblot. Functional analysis of the mutated **flagellin** genes with or without an insert suggested that amino acids 180 to 214 in the 5' part of hypervariable region IV (residues 181 to 307 of the total of 505) is important to the function of flagella. The hybrid proteins formed by insertion of peptide sequence pre-S1 12-47 of hepatitis B virus surface antigen into the deleted **flagellins** assembled into functional flagella, and antibody to the pre-S1 sequence was detected after **immunization** of mice with the hybrid protein. This suggests that such mutant **flagellins** containing heterologous epitopes have potential as vaccines.

AN 1994:226104 BIOSIS

DN PREV199497239104

TI Hypervariable region IV of **Salmonella** gene fliC-d encodes a dominant surface epitope and a stabilizing factor for functional flagella.

AU He, Xiao-Song; Rivkina, Marianne; Stocker, Bruce A. D.; Robinson, William S. (1)

CS (1) Dep. Med., Stanford Univ. Sch. Med., Stanford, CA 94305 USA

SO Journal of Bacteriology, (1994) Vol. 176, No. 8, pp. 2406-2414. ISSN: 0021-9193.

DT Article

LA English

L10 ANSWER 116 OF 304 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
DUPLICATE 17

AB A nonflagellated mutant of **Salmonella** enterica serotype Enteritidis was constructed by disrupting the **flagellin** gene (fliC). Northern blot analysis indicated that the **mutation** did not affect expression of the downstream fliU gene. Infection experiments with differentiated Caco-2 cells revealed that the mutant was about 50-fold less invasive than the wild-type strain, while bacterial adherence was unaffected. Complementation of the mutant with an intact fliC copy restored flagella formation and efficient bacterial invasion. Our data demonstrate that the fliC gene of S. enterica serotype Enteritidis is essential for the invasion of Caco-2 cells.

AN 2000:243419 BIOSIS
DN PREV200000243419

TI Inactivation of the **flagellin** gene of **Salmonella** enterica serotype Enteritidis strongly reduces invasion into differentiated Caco-2 cells.

AU Van Asten, Fons J. A. M. (1); Hendriks, Henno G. C. J. M.; Koninkx, Jos F. J. G.; Van der Zeijst, Bernard A. M.; Gaastra, Wim
CS (1) Department of Bacteriology, Faculty of Veterinary Medicine, Institute of Infectious Diseases and Immunology, University of Utrecht, 3508 TD, Utrecht Netherlands

SO FEMS Microbiology Letters, (April 15, 2000) Vol. 185, No. 2, pp. 175-179. ISSN: 0378-1097.
DT Article
LA English
SL English

L20 ANSWER 1 OF 54 USPATFULL

AB Novel genes encoding homologous immunoreactive thio-disulfide oxidoreductases, or disulfide bond formation (Dsb) proteins from Ehrlichia chaffeensis and Ehrlichia canis are disclosed. While the E. chaffeensis and E. canis Dsb proteins are at most only 31% or less homologous to other known Dsb proteins, the Ehrlichia Dsbs contain a cysteine active site, Cys-Gly-Tyr-Cys, similar to those in known Dsb proteins. As predicted by 15-amino acid identical N-terminal signal peptides, the proteins are primarily localized in the periplasm of E. chaffeensis and E. canis, possibly playing a role in antigenicity and pathogenesis. The present invention provides the nucleotide and amino acid sequences and expression vectors for the E. chaffeensis and E. canis dsb genes, antisera directed against the proteins, and kits to determine whether an individual or animal is infected with a given species of Ehrlichia.

AN 2003:134002 USPATFULL

TI Ehrlichia disulfide bond formation proteins and uses thereof

IN Walker, David H., Galveston, TX, UNITED STATES
McBride, Jere W., League City, TX, UNITED STATES

PI US 2003092087 A1 20030515

AI US 2002-286516 A1 20021101 (10)

PRAI US 2001-335611P 20011101 (60)

DT Utility

FS APPLICATION

LREP Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX, 77071

CLMN Number of Claims: 40

ECL Exemplary Claim: 1

DRWN 14 Drawing Page(s)

LN.CNT 1449

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 2 OF 54 USPATFULL

AB Screening procedures are disclosed for identifying compounds useful for inhibiting fungal infection or pathogenicity. Methods are also disclosed for identifying fungal pathogenic virulence factors.

AN 2003:126660 USPATFULL

TI Methods of screening compounds useful for prevention of infection or pathogenicity

IN Ausubel, Frederick M., Newton, MA, UNITED STATES
Calderwood, Stephen B., Wellesley, MA, UNITED STATES
Mylonakis, Eleftherios, Boston, MA, UNITED STATES
Diener, Andrew, Cambridge, MA, UNITED STATES
Plotnikova, Julia, Quincy, MA, UNITED STATES
Sifri, Costi D., Quincy, MA, UNITED STATES
Rahme, Laurence G., Brookline, MA, UNITED STATES
Tan, Man-Wah, Menlo Park, CA, UNITED STATES
Ruvkun, Gary B., Newton, MA, UNITED STATES
Jander, Georg, Ithaca, NY, UNITED STATES
Heard, Jacqueline, San Mateo, CA, UNITED STATES

PI US 2003086871 A1 20030508

AI US 2002-153754 A1 20020522 (10)

RLI Continuation-in-part of Ser. No. US 1997-962750, filed on 3 Nov 1997, PENDING Continuation-in-part of Ser. No. US 1997-852927, filed on 8 May 1997, PENDING Continuation-in-part of Ser. No. US 1995-411560, filed on 28 Mar 1995, GRANTED, Pat. No. US 6461854

DT Utility

FS APPLICATION

LREP CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110

CLMN Number of Claims: 54

ECL Exemplary Claim: 1

DRWN 27 Drawing Page(s)

LN.CNT 2844

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 3 OF 54 USPATFULL
AB The invention provides ginS polypeptides and, polynucleotides encoding ginS polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are methods for utilizing ginS polypeptides to screen for antibacterial compounds.
AN 2003:120803 USPATFULL
TI ginS
IN Burgess, Nicola A., Lichfield, UNITED KINGDOM
Garcia, Miguel M. Camara, Chesterfield, UNITED KINGDOM
Kirke, David F., Kimberley, UNITED KINGDOM
Meyers, Nicholas L., Huntingdon, UNITED KINGDOM
Williams, Paul, Kimberley, UNITED KINGDOM
PI US 2003083287 A1 20030501
AI US 2001-998279 A1 20011130 (9)
PRAI US 2000-250288P 20001130 (60)
DT Utility
FS APPLICATION
LREP Edward R. Gimmi, SmithKline Beecham Corporation, Corporate Intellectual Property -U.S., UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 2634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 4 OF 54 USPATFULL
AB The invention relates to the identification and isolation of a novel sigma 54 (.sigma..sup.54) transcription factor from Vibrio harveyi. The invention further relates to the identification of .sigma..sup.54 interactions with LuxO. More particularly, the invention provides methods for identifying compounds that regulate bacterial cell growth and virulence by regulating LuxO-.sigma..sup.54 activities.
AN 2003:31081 USPATFULL
TI LuxO-sigma54 interactions and methods of use
IN Bassler, Bonnie L., Princeton, NJ, UNITED STATES
Lilley, Brendan N., Boston, MA, UNITED STATES
PI US 2003023032 A1 20030130
AI US 2001-853257 A1 20010510 (9)
PRAI US 2000-202999P 20000510 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660
CLMN Number of Claims: 53
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 2218
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 5 OF 54 USPATFULL
AB Compositions and methods are provided for actin regulatory proteins including human severin (H-severin) and H-30; and their uses including the preparation of polyclonal and monoclonal antibodies for use in diagnosing and staging the progression of metastatic tumors and other disorders of cellular growth regulation. Also provided are methods of screening to identify potential drug candidate molecules which modulate the activity of human severin or H-30 and methods of use of such compounds to accelerate wound healing, or to treat a metastasis or growth disorder.
AN 2003:30311 USPATFULL
TI Human actin-binding regulatory proteins and methods for detection, diagnosis and treatment of different stages of carcinogenesis
IN Pardee, Joel D., Patterson, NY, UNITED STATES

PA Cornell Research Foundation, Inc. (U.S. corporation)
PI US 2003022258 A1 20030130
AI US 2002-105708 A1 20020325 (10)
RLI Division of Ser. No. US 2000-586629, filed on 5 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 1999-419485, filed on 15 Oct 1999, GRANTED, Pat. No. US 6403766
DT Utility
FS APPLICATION
LREP Irving N. Feit, Esq., HOFFMANN & BARON, LLP, 6900 Jericho Turnpike, Syosset, NY, 11791
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 2003
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 6 OF 54 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived Enterococcus faecium that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:169096 USPATFULL
TI Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
IN Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6583275 B1 20030624
AI US 1998-107532 19980630 (9)
PRAI US 1998-85598P 19980514 (60)
US 1997-51571P 19970702 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 0 Drawing.Figure(s); 0 Drawing Page(s)
LN.CNT 15265

L20 ANSWER 7 OF 54 USPATFULL
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.
AN 2003:130010 USPATFULL
TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
IN Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6562958 B1 20030513
AI US 1999-328352 19990604 (9)
PRAI US 1998-88701P 19980609 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Borin, Michael
LREP Genome Therapeutics Corporation

CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 16618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 8 OF 54 USPATFULL
AB Novel polynucleotides isolated from Lactobacillus rhamnosus, as well as probes and primers, genetic constructs comprising the polynucleotides, biological materials, including plants, microorganisms and multicellular organisms incorporating the polynucleotides, polypeptides expressed by the polynucleotides, and methods for using the polynucleotides and polypeptides are disclosed.
AN 2003:95966 USPATFULL
TI Polynucleotides, materials incorporating them, and methods for using them
IN Glenn, Matthew, Auckland, NEW ZEALAND
Havukkala, Ilkka J., Auckland, NEW ZEALAND
Bloksberg, Leonard N., Auckland, NEW ZEALAND
Lubbers, Mark W., Palmerston North, NEW ZEALAND
Dekker, James, Palmerston North, NEW ZEALAND
Christensson, Anna C., Lund, SWEDEN
Holland, Ross, Palmerson North, NEW ZEALAND
O'Toole, Paul W., Palmerston North, NEW ZEALAND
Reid, Julian R., Palmerston North, NEW ZEALAND
Coolbear, Timothy, Palmerston North, NEW ZEALAND
PA Genesis Research & Development Corp. Ltd, Parnell, NEW ZEALAND (non-U.S. corporation)
Via Lachia Bioscience (NZ) Ltd., Auckland, NEW ZEALAND (non-U.S. corporation)
PI US 6544772 B1 20030408
AI US 2000-634238 20000808 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Brusca, John S.
LREP Sleath, Janet, Speckman, Ann W.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 2015
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 9 OF 54 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2003:60089 USPATFULL
TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

PI US 6528289 B1 20030304
AI US 2000-643990 20000823 (9)
RLI Continuation of Ser. No. US 1995-487429, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Martinell, James
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4428
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 10 OF 54 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2003:13200 USPATFULL
TI Nucleotide sequence of the Haemophilus influenzae Rd genome, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Science, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6506581 B1 20030114
AI US 2000-557884 20000425 (9)
RLI Continuation of Ser. No. US 1995-476102, filed on 7 Jun 1995
Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Brusca, John S.
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 51
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4510
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 11 OF 54 USPATFULL
AB The present invention relates generally to the field of microbiology and food sciences. More particularly, the inventor has discovered several polynucleotide sequences encoding the gnd gene and corresponding 6-phosphogluconate dehydrogenase (6-PGD) proteins from different strains of Escherichia Coli and polymorphic sequences therein. Novel biotechnological tools, diagnostics, and food screening techniques are provided.
AN 2002:272781 USPATFULL
TI Polymorphic loci that differentiate escherichia coli 0157:H7 from other strains
IN Tarr, Phillip I., Seattle, WA, UNITED STATES

PI US 2002150902 A1 20021017
AI US 2001-875573 A1 20010605 (9)
RLI Continuation of Ser. No. WO 1999-US29149, filed on 8 Dec 1999, UNKNOWN
PRAI US 1998-111493P 19981208 (60)
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 3813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 12 OF 54 USPATFULL
AB The invention provides methods and compositions relating to intracellular delivering of agents to eukaryotic cells. The compositions include microbial delivery vehicles such as nonvirulent bacteria comprising a first gene encoding a nonsecreted foreign cytolysin operably linked to a heterologous promoter and a second gene encoding a different foreign agent. The foreign agent may be a nucleic acid or protein, and is frequently bioactive in and therapeutic to the target eukaryote. In addition, the invention provides eukaryotic cells comprising the subject nonvirulent bacteria and nonhuman eukaryotic host organisms comprising such cells.
AN 2002:258440 USPATFULL
TI Intracellular delivery vehicles
IN Portnoy, Daniel A., Berkeley, CA, UNITED STATES
Higgins, Darren E., Berkeley, CA, UNITED STATES
PI US 2002142007 A1 20021003
AI US 2001-949109 A1 20010907 (9)
RLI Continuation of Ser. No. US 1999-469197, filed on 21 Dec 1999, PATENTED
Continuation of Ser. No. US 1998-133914, filed on 13 Aug 1998, PATENTED
DT Utility
FS APPLICATION
LREP RICHARD ARON OSMAN, SCIENCE AND TECHNOLOGY LAW GROUP, 75 DENISE DRIVE, HILLSBOROUGH, CA, 94010
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1075
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 13 OF 54 USPATFULL
AB The present invention provides a polypeptide, called EspA, which is secreted by pathogenic E. coli, such as the enteropathogenic (EPEC) and enterohemorrhagic (EHEC) E. coli. The invention also provides isolated nucleic acid sequences encoding EspA polypeptide, EspA peptides, a recombinant method for producing recombinant EspA, antibodies which bind to EspA, and a kit for the detection of EspA-producing E. coli.
AN 2002:214437 USPATFULL
TI Pathogenic escherichia coli associated protein
IN Finlay, B. Brett, Richmond, CANADA
Kenny, Brendan, Bristol, UNITED KINGDOM
Stein, Markus, Quercegrossa, ITALY
Donnenberg, Michael S., Baltimore, MD, UNITED STATES
Lai, Li-Ching, Upper Arlington, OH, UNITED STATES
PI US 2002115829 A1 20020822
AI US 2001-967347 A1 20010928 (9)
RLI Division of Ser. No. US 1999-171517, filed on 10 Aug 1999, PATENTED A 371 of International Ser. No. WO 1997-CA265, filed on 23 Apr 1997, UNKNOWN
PRAI US 1996-15999P 19960423 (60)
DT Utility

FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 39
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 2259
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 14 OF 54 USPATFULL
AB The present invention relates to growing and testing microorganisms in a multitest format which utilizes a gel forming matrix for the rapid screening of clinical and environmental cultures. The present invention is suited for the characterization of commonly encountered microorganisms (e.g., E. coli, S. aureus, etc.), as well as commercially and industrially important organisms from various and diverse environments (e.g., the present invention is particularly suited for the growth and characterization of the actinomycetes and fungi). The present invention is also particularly suited for comparative analysis of phenotypic differences between cell types, including strains of microorganisms that have been designated as the same genus and species, as well as other cell types (e.g., mammalian, insect, and plant cells).
AN 2002:206155 USPATFULL
TI Comparative phenotype analysis
IN Bochner, Barry, Alameda, CA, UNITED STATES
Panomitros, Eugenia, San Francisco, CA, UNITED STATES
PI US 2002110848 A1 20020815
AI US 2002-47048 A1 20020114 (10)
RLI Continuation of Ser. No. US 2000-574087, filed on 18 May 2000, PENDING Continuation of Ser. No. US 1999-333802, filed on 15 Jun 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-98066, filed on 16 Jun 1998, PATENTED Continuation-in-part of Ser. No. US 1996-762656, filed on 9 Dec 1996, PATENTED Continuation-in-part of Ser. No. US 1995-421377, filed on 12 Apr 1995, PATENTED
DT Utility
FS APPLICATION
LREP MEDLEN & CARROLL, LLP, Suite 350, 101 Howard Street, San Francisco, CA, 94105
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 3320
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 15 OF 54 USPATFULL
AB A method of enhancing biomass yield of a lactic acid bacterial species cell culture, comprising cultivating the cells in a process comprising the steps of providing conditions that results in a reduced glycolytic flux and providing conditions that enable the cells to have, under aerobic conditions, a respiratory metabolism. The increased yield of biomass may be the result of an increased yield of ATP which can be obtained by activating the native ATP synthase activity of the H.sup.+-ATPase complex by lowering the ATP/ADP ratio, e.g. by carbon source limitation, and/or by increasing the proton gradient (membrane potential) of the cells, e.g. by enhancing or establishing an electron transport chain which can be achieved by enhancing expression of dehydrogenases or electron transport chain components, by adding to the medium a quinone or porphyrin compound or by enhancing the expression of the H.sup.+-ATPase activity.
AN 2002:60980 USPATFULL
TI Method of improving biomass yield of lactic acid bacterial cultures
IN Blank, Lars, Kamen, GERMANY, FEDERAL REPUBLIC OF
Jensen, Peter Ruhdal, Gentofte, DENMARK
Koebmann, Brian Jensen, Stensved, DENMARK

PI US 2002034815 A1 20020321
AI US 2001-898490 A1 20010705 (9)
PRAI US 2000-216356P 20000705 (60)
DT Utility
FS APPLICATION
LREP Stephen A. Bent, FOLEY & LARDNER, Washington Harbour, 3000 K Street, N.W., Suite 500, Washington, DC, 20007-5109
CLMN Number of Claims: 41
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1742
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 16 OF 54 USPATFULL
AB The present invention relates to growing and testing microorganisms in a multitest format which utilizes a gel forming matrix for the rapid screening of clinical and environmental cultures. The present invention is suited for the characterization of commonly encountered microorganisms (e.g., E. coli, S. aureus, etc.), as well as commercially and industrially important organisms from various and diverse environments (e.g., the present invention is particularly suited for the growth and characterization of the actinomycetes and fungi). The present invention is also particularly suited for comparative analysis of phenotypic differences between cell types, including strains of microorganisms that have been designated as the same genus and species, as well as other cell types (e.g., mammalian, insect, and plant cells).
AN 2002:283155 USPATFULL
TI Comparative phenotype analysis
IN Bochner, Barry, Alameda, CA, United States
Panomitros, Eugenia, San Francisco, CA, United States
PA Biolog, Inc., Hayward, CA, United States (U.S. corporation)
PI US 6472201 B1 20021029
AI US 2000-752168 20001229 (9)
RLI Continuation of Ser. No. US 2000-574087, filed on 18 May 2000 Continuation of Ser. No. US 1999-333802, filed on 15 Jun 1999, now abandoned Continuation-in-part of Ser. No. US 1998-98066, filed on 16 Jun 1998, now patented, Pat. No. US 6046021 Continuation-in-part of Ser. No. US 1996-762656, filed on 9 Dec 1996, now patented, Pat. No. US 5882882 Continuation-in-part of Ser. No. US 1995-421377, filed on 12 Apr 1995, now patented, Pat. No. US 5627045, issued on 6 May 1997
DT Utility
FS GRANTED
EXNAM Primary Examiner: Tate, Christopher R.
LREP Medlen & Carroll, LLP
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 3322
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 17 OF 54 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2002:275915 USPATFULL
TI Selected Haemophilus influenzae Rd polynucleotides and polypeptides
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States

White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6468765 B1 20021022
AI US 1995-487429 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Martinell, James
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 87
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 3078
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 18 OF 54 USPATFULL
AB Screening procedures are disclosed for identifying compounds useful for inhibiting infection or pathogenicity. Methods are also disclosed for identifying pathogenic virulence factors.
AN 2002:262231 USPATFULL
TI Methods of screening compounds useful for prevention of infection or pathogenicity
IN Ausubel, Frederick M., Newton, MA, United States
Rahme, Laurence G., Brookline, MA, United States
Tan, Man-Wah, Somerville, MA, United States
Ruvkun, Gary B., Cambridge, MA, United States
PA The General Hospital Corporation, Boston, MA, United States (U.S. corporation)
PI US 6461854 B1 20021008
AI US 1995-411560 19950328 (8)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Swartz, Rodney P
LREP Clark & Elbing LLP
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1135
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 19 OF 54 USPATFULL
AB Protein compositions and methods of use are provided for human Severin. The uses include the preparation of polyclonal and monoclonal antibodies for diagnosing and staging the progression of metastatic tumors and other disorders of cellular growth regulation. Also provided are methods of screening to identify potential drug candidate molecules which modulate the human Severin activity and methods of use of such compounds to accelerate wound healing, or to treat a metastasis or growth disorder.
AN 2002:137142 USPATFULL
TI Human actin regulatory proteins and methods for detection, diagnosis and treatment of different stages of carcinogenesis
IN Pardee, Joel D., Patterson, NY, United States
PA Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)
PI US 6403766 B1 20020611
AI US 1999-419485 19991015 (9)
DT Utility

FS GRANTED
EXNAM Primary Examiner: Huff, Sheela; Assistant Examiner: Harris, Alana M.
LREP Hoffmann & Baron, LLP, Feit, Irving N.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1362
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 20 OF 54 USPATFULL
AB A **vaccine** for protecting birds against infection by avian pathogenic gram negative microbes is disclosed. The **vaccine** is a recombinant Salmonella strain expressing O-antigen of an avian pathogenic gram negative microbe such as an E. coli strain that is pathogenic in poultry. The recombinant Salmonella strain also does not express Salmonella O-antigen. Methods of using the **vaccine** to **immunize** birds are also disclosed.
AN 2002:129534 USPATFULL
TI Live attenuated salmonella **vaccines** to control avian pathogens
IN Roland, Kenneth L., St. Louis, MO, United States
PA Megan Health, Inc., St. Louis, MO, United States (U.S. corporation)
PI US 6399074 B1 20020604
AI US 1998-122441 19980724 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Schwartzman, Robert A.; Assistant Examiner: Beckerleg, Anne Marie S.
LREP Howell & Haferkamp
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1594

L20 ANSWER 21 OF 54 USPATFULL
AB The present invention relates to growing and testing microorganisms in a multitest format which utilizes a gel forming matrix for the rapid screening of clinical and environmental cultures. The present invention is suited for the characterization of commonly encountered microorganisms (e.g., E. coli, S. aureus, etc.), as well as commercially and industrially important organisms from various and diverse environments (e.g., the present invention is particularly suited for the growth and characterization of the actinomycetes and fungi). The present invention is also particularly suited for comparative analysis of phenotypic differences between cell types, including strains of microorganisms that have been designated as the same genus and species, as well as other cell types (e.g., mammalian, insect, and plant cells).
AN 2002:108841 USPATFULL
TI Comparative phenotype analysis of two or more microorganisms using a plurality of substrates within a microwell device
IN Bochner, Barry, Alameda, CA, United States
Panomitros, Eugenia, San Francisco, CA, United States
PA Biolog, Inc., Hayward, CA, United States (U.S. corporation)
PI US 6387651 B1 20020514
AI US 2000-574087 20000518 (9)
RLI Continuation of Ser. No. US 1999-333802, filed on 15 Jun 1999, now abandoned Continuation-in-part of Ser. No. US 1998-98066, filed on 16 Jun 1998, now patented, Pat. No. US 6046021, issued on 4 Apr 2000 Continuation-in-part of Ser. No. US 1996-762656, filed on 9 Dec 1996, now patented, Pat. No. US 5882882, issued on 16 Mar 1999 Continuation-in-part of Ser. No. US 1995-421377, filed on 12 Apr 1995, now patented, Pat. No. US 5627045, issued on 6 May 1997
DT Utility
FS GRANTED
EXNAM Primary Examiner: Tate, Christopher R.

LREP Medlen & Carroll LLP
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 3336
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 22 OF 54 USPATFULL
AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO: 1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.
AN 2002:50802 USPATFULL
TI Computer readable genomic sequence of Haemophilus influenzae Rd, fragments thereof, and uses thereof
IN Fleischmann, Robert D., Gaithersburg, MD, United States
Adams, Mark D., N. Potomac, MD, United States
White, Owen, Gaithersburg, MD, United States
Smith, Hamilton O., Towson, MD, United States
Venter, J. Craig, Potomac, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6355450 B1 20020312
AI US 1995-476102 19950607 (8)
RLI Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Campell, Bruce R.
CLMN Number of Claims: 88
ECL Exemplary Claim: 1
DRWN 47 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 4666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 23 OF 54 USPATFULL
AB The present invention provides the EspA polypeptide, which is secreted by pathogenic E coli, such as the enteropathogenic (EPEC) and enterohemorrhagic (EHEC) E coli. Diagnosis of disease caused by such pathogenic E coli can be performed by standard techniques, such as those based upon the use of antibodies which bind to EspA to detect the protein, as well as those based on the use of nucleic acid probes for detection of nucleic acids encoding EspA protein. The invention also provides isolated nucleic acid sequences encoding EspA, EspA polypeptide, EspA peptides, a method for producing recombinant EspA, antibodies which bind to EspA, and a kit for the detection of EspA-producing E coli. The invention also provides a method of **immunizing** a host with EspA to induce a protective immune response to EspA.
AN 2002:50620 USPATFULL
TI Pathogenic Escherichia coli associated protein EspA
IN Finlay, B. Brett, Richmond, CANADA
Kenny, Brendan, Redland, UNITED KINGDOM
Stein, Markus, Quercegrossa, ITALY
Donnenberg, Michael S., Baltimore, MD, United States
Lai, Li-Ching, Upper Arlington, OH, United States
PA University of British Columbia, Vancouver, CANADA (non-U.S. corporation)
PI US 6355254 B1 20020312
WO 9740063 19971030

AI US 1999-171517 19990810 (9)
WO 1997-CA265 19970423
19990810 PCT 371 date
PRAI US 1996-15999P 19960423 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Graser, Jennifer E.
LREP SEED Intellectual Property Law Group PLLC
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2147
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 24 OF 54 USPATFULL
AB The present invention relates to our discovery that the mxiM protein of Shigella flexneri is indispensable for the spread of Shigella from cell to cell. Thus, the invention provides the mxiM protein or peptides or portions thereof as antigens in **vaccines** to prevent Shigella infections and treat hosts infected with Shigella by inhibiting intercellular spread. In another aspect, the invention relates to antibodies generated against the mxiM proteins, peptides, or portions thereof to detect Shigella in contaminated food and water supplies as well as in infected hosts. The present invention also describes a method called the TIER (test of intracellular expression requirements) for determining the intracellular expression requirements of genes and therefore, permitting one to establish the role of genes in the pathogenesis of organisms. A method of detecting Shigella or Shigella mxiM DNA in a sample using a mxiM DNA probe is also described.
AN 2002:19176 USPATFULL
TI Method of detecting shigella and shigella mxiM DNA
IN Schuch, Raymond, Washington, DC, United States
Sandlin, Robin C., Columbia, MD, United States
Maurelli, Anthony T., Silver Spring, MD, United States
PA The Henry M. Jackson Foundation for the Advancement of Military Medicine, Rockville, MD, United States (U.S. corporation)
PI US 6342352 B1 20020129
AI US 1999-296670 19990422 (9)
PRAI US 1998-82944P 19980424 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Devi, S.
LREP Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2019
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 25 OF 54 USPATFULL
AB Methods and **vaccines** for protection of animals against Campylobacter infection are provided.
AN 2001:199744 USPATFULL
TI METHODS AND **VACCINES** FOR PROTECTION AGAINST CAMPYLOBACTER INFECTIONS
IN NACHAMKIN, IRVING, NEWTON SQUARE, PA, United States
PI US 2001038844 A1 20011108
AI US 1999-300975 A1 19990428 (9)
PRAI US 1998-84170P 19980504 (60)
DT Utility
FS APPLICATION
LREP JANE MASSEY LICATA, LAW OFFICES OF JANE MASSEY LICATA, 66 E MAIN STREET, MARLTON, NJ, 08053
CLMN Number of Claims: 6

ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 449

L20 ANSWER 26 OF 54 USPATFULL
AB The present invention relates to Salmonella bacteria for use as a **vaccine**. The invention also relates to **vaccines** based thereon that are useful for the prevention of microbial pathogenesis. Further, the invention relates to the use of such bacteria or the manufacture of such **vaccines**. Finally, the invention relates to methods for the preparation of such **vaccines**.
AN 2001:155455 USPATFULL
TI Salmonella **vaccine**
IN Nuijten, Petrus Johannes Maria, Boxmeer, Netherlands
Witvliet, Maarten Hendrik, Oostrum, Netherlands
PI US 2001021386 A1 20010913
AI US 2000-749025 A1 20001227 (9)
PRAI EP 1999-204564 19991228
DT Utility
FS APPLICATION
LREP William M. Blackstone, Akzo nobel Patent Department, Suite 206, 1300 Piccard Drive, Rockville, MD, 20850
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 745
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 27 OF 54 USPATFULL
AB The invention provides methods and compositions relating to intracellular delivering of agents to eukaryotic cells. The compositions include microbial delivery vehicles such as nonvirulent bacteria comprising a first gene encoding a nonsecreted foreign cytolysin operably linked to a heterologous promoter and a second gene encoding a different foreign agent. The foreign agent may be a nucleic acid or protein, and is frequently bioactive in and therapeutic to the target eukaryote. In addition, the invention provides eukaryotic cells comprising the subject nonvirulent bacteria and nonhuman eukaryotic host organisms comprising such cells.
AN 2001:152474 USPATFULL
TI Intracellular delivery vehicles
IN Portnoy, Daniel A., Berkeley, CA, United States
Higgins, Darren E., Berkeley, CA, United States
PA The Regents of the University of California, Oakland, CA, United States (U.S. corporation)
PI US 6287556 B1 20010911
AI US 1999-469197 19991221 (9)
RLI Continuation of Ser. No. US 1998-133914, filed on 13 Aug 1998, now patented, Pat. No. US 6004815
DT Utility
FS GRANTED
EXNAM Primary Examiner: McGarry, Sean; Assistant Examiner: Lacourciere, Karen A
LREP Osman, Richard Aron
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1141
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 28 OF 54 USPATFULL
AB V. cholerae **vaccine** strains which have a soft agar penetration-defective phenotype and methods for making such strains are described. Also described are methods for identifying new genes involved

in V. cholerae motility and the cloning, identification, and sequencing of V. cholerae motB and fliC genes.
AN 2001:40015 USPATFULL
TI Vibrio cholerae **mutants** which are soft-agar penetration defective and lack a functional CtxA subunit
IN Mekalanos, John J., Cambridge, MA, United States
Gardel, Claudette L., Brighton, MA, United States
Camilli, Andrew, Chestnut Hill, MA, United States
PA Presidents and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation)
PI US 6203799 B1 20010320
AI US 1994-349403 19941202 (8)
RLI Continuation-in-part of Ser. No. US 1994-178055, filed on 6 Jan 1994, now abandoned Continuation-in-part of Ser. No. WO 1993-US6270, filed on 1 Jul 1993
DT Utility
FS Granted
EXNAM Primary Examiner: Minnifield, Nita
LREP Clark & Elbing LLP, Bieker-Brady, Kristina
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1388
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 29 OF 54 USPATFULL
AB The present invention is directed to recombinant genes and their encoded proteins which are recombinant flagellin fusion proteins. Such fusion proteins comprise amino acid sequences specifying an epitope encoded by a flagellin structural gene and an epitope of a heterologous organism which is immunogenic upon introduction of the fusion protein into a vertebrate host. The recombinant genes and proteins of the present invention can be used in **vaccine** formulations, to provide protection against infection by the heterologous organism, or to provide protection against conditions or disorders caused by an antigen of the organism. In a specific embodiment, attenuated invasive bacteria expressing the recombinant flagellin genes of the invention can be used in live **vaccine** formulations. The invention is illustrated by way of examples in which epitopes of malaria circumsporozoite antigens, the B subunit of Cholera toxin, surface and presurface antigens of Hepatitis B. VP7 polypeptide of rotavirus, envelope glycoprotein of HIV, and M protein of Streptococcus, are expressed in recombinant flagellin fusion proteins which assemble into functional flagella, and which provoke an immune response directed against the heterologous epitope, in a vertebrate host.
AN 2000:134749 USPATFULL
TI Recombinant flagellin **vaccines**
IN Majarian, William R., Mt. Royal, NJ, United States
Stocker, Bruce A. D., Palo Alto, CA, United States
Newton, Salete M. C., Mountain View, CA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
The Board of Trustees of the Leland Stanford Junior University, Stanford, CA, United States (U.S. corporation)
PI US 6130082 20001010
AI US 1992-837668 19920214 (7)
RLI Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Hamilton, Brook, Smith & Reynolds, P.C.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1

DRWN 15 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 30 OF 54 USPATFULL
AB A protein associated with adherence and invasion of Campylobacter spp. including C. jejuni and C. coli is provided. Methods are disclosed for detecting Campylobacter spp. including C. jejuni and C. coli in a biological sample by determining the presence of the protein or a nucleic acid molecule encoding the protein in the sample. Compositions for treatment of infections diseases and **vaccines** are also described.
AN 2000:87935 USPATFULL
TI Gene encoding invasion protein of campylobacter species
IN Chan, Voon Loong, 93 Elm Ridge Drive, Toronto, Ontario, Canada M6B 1A6
Joe, Angela, #1122, 341 Bloor Street West, Toronto, Ontario, Canada M5S 1N8
Hong, Yuwen, 300 Regina Street North, Waterloo, Ontario, Canada N2J 4H2
PI US 6087105 20000711
AI US 1998-56783 19980408 (9)
PRAI US 1997-43414P 19970408 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Portner, Ginny Allen
LREP Bereskin & Parr
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 1803
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 31 OF 54 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia and to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.
AN 2000:77033 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio G., Newbury Park, CA, United States
Sadziene, Adriadna, San Antonio, TX, United States
PA The University of Texas System, Board of Regents, Austin, TX, United States (U.S. corporation)
PI US 6077515 20000620
AI US 1996-696372 19960813 (8)
RLI Continuation of Ser. No. US 1993-124290, filed on 20 Sep 1993, now patented, Pat. No. US 5585102, issued on 17 Dec 1996 which is a continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991, now patented, Pat. No. US 5436000, issued on 25 Jul 1995
DT Utility

FS Granted
EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Ryan, V.
LREP Arnold White & Durkee
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1355

L20 ANSWER 32 OF 54 USPATFULL
AB The present invention relates to growing and testing microorganisms in a multitest format which utilizes a gel forming matrix for the rapid screening of clinical and environmental cultures. The present invention is suited for the characterization of commonly encountered microorganisms (e.g., E. coli, S. aureus, etc.), as well as commercially and industrially important organisms from various and diverse environments (e.g., the present invention is particularly suited for the growth and characterization of the actinomycetes and fungi). The present invention is also particularly suited for comparative analysis of phenotypic differences between cell types, including strains of microorganisms that have been designated as the same genus and species, as well as other cell types (e.g., mammalian, insect, and plant cells).
AN 2000:40866 USPATFULL
TI Comparative phenotype analysis of two or more microorganisms using a plurality of substrates within a multiwell testing device
IN Bochner, Barry, Alameda, CA, United States
PA Biolog, Inc., CA, United States (U.S. corporation)
PI US 6046021 20000404
AI US 1998-98066 19980616 (9)
RLI Continuation-in-part of Ser. No. US 1996-762656, filed on 9 Dec 1996, now patented, Pat. No. US 5882882, issued on 16 Mar 1999 which is a continuation-in-part of Ser. No. US 1995-421377, filed on 12 Apr 1995, now patented, Pat. No. US 5627045, issued on 6 May 1997
DT Utility
FS Granted
EXNAM Primary Examiner: Lankford, Jr., Leon B.; Assistant Examiner: Tate, Christopher R.
LREP Medlen & Carroll, LLP
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 2822
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 33 OF 54 USPATFULL
AB Purified and isolated nucleic acid molecules are provided which encode a basal body rod protein of a strain of Campylobacter, particularly C. jejuni, or a fragment or an analog of the basal body rod protein. The nucleic acid molecules may be used to produce proteins free of contaminants derived from bacteria normally containing the FlgF or FlgG proteins for purposes of diagnostics and medical treatment. Furthermore, the nucleic acid molecules, proteins encoded thereby and antibodies raised against the proteins, may be used in the diagnosis of infection.
AN 2000:12588 USPATFULL
TI Basal body rod protein FlgF of campylobacter
IN Chan, Voon Loong, Toronto, Canada
Louie, Helena, Markham, Canada
PA Connaught Laboratories Limited, North York, Canada (non-U.S. corporation)
PI US 6020125 20000201
AI US 1995-483857 19950607 (8)
RLI Continuation of Ser. No. US 1995-436748, filed on 8 May 1995, now patented, Pat. No. US 5827654
DT Utility
FS Granted

EXNAM Primary Examiner: Chin, Christopher L.; Assistant Examiner: Portner, Ginny Allen
LREP Sim & McBurney
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 1392
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 34 OF 54 USPATFULL
AB The invention provides methods and compositions relating to intracellular delivering of agents to eukaryotic cells. The compositions include microbial delivery vehicles such as nonvirulent bacteria comprising a first gene encoding a nonsecreted foreign cytolysin operably linked to a heterologous promoter and a second gene encoding a different foreign agent. The foreign agent may be a nucleic acid or protein, and is frequently bioactive in and therapeutic to the target eukaryote. In addition, the invention provides eukaryotic cells comprising the subject nonvirulent bacteria and nonhuman eukaryotic host organisms comprising such cells.
AN 1999:166856 USPATFULL
TI Bacteria expressing nonsecreted cytolysin as intracellular microbial delivery vehicles to eukaryotic cells
IN Portnoy, Daniel A., Berkeley, CA, United States
Higgins, Darren E., Berkeley, CA, United States
PA The Regents of the University of California, Oakland, CA, United States (U.S. corporation)
PI US 6004815 19991221
AI US 1998-133914 19980813 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Railey, II, Johnny F.
LREP Osman, Richard Aron
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1197
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 35 OF 54 USPATFULL
AB A growth supplement for bacterial media is used to induce and/or maintain differentiation and viability of bacterial cell cultures. The supplement contains about 10 mM to about 100 mM of a sugar, an amino acid or mixtures thereof. When the media used does not contain iron and reducing agents, such as sodium thiosulfate, these are included in the supplement. The reducing agent is present preferably at about 20 to about 40 mM. The addition of this supplement results in flagellation of aflagellate variants of Salmonella and hyperflagellation of variants of Salmonella which are flagellated.
AN 1999:56414 USPATFULL
TI Complex growth supplement for maintenance of bacterial cell viability and induction of bacterial cell differentiation
IN Petter, Jean Guard, Athens, GA, United States
Ingram, Kim D., Watkinsville, GA, United States
PA The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)
PI US 5902742 19990511
AI US 1996-649501 19960517 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Lankford, Jr., Leon B.; Assistant Examiner: Tate, Christopher R.
LREP Silverstein, M. Howard, Fado, John, Poulos, Gail E.
CLMN Number of Claims: 7

ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 847
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 36 OF 54 USPATFULL
AB A fusion protein which comprises the B subunit of the labile toxin (LT-B) of E. coli and part of the flagellin (flaA) protein of C. jejuni is antigenic and is useful for decreasing colonization in chickens by Campylobacter species. The protein is produced by E. coli cells, transformed by the plasmid pBEB into which DNA sequences encoding the novel protein have been introduced.
AN 1999:40230 USPATFULL
TI Campylobacteri jejuni flagellin-escherichia coli LT-B fusion protein
IN Meinersmann, Richard J., Lithonia, GA, United States
Khoury, Christian A., Philadelphia, PA, United States
PA The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)
PI US 5888810 19990330
AI US 1997-784218 19970116 (8)
RLI Division of Ser. No. US 1993-150305, filed on 12 Nov 1993, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Caputa, Anthony C.
LREP Silverstein, M. Howard, Fado, John, Graeter, Janelle S.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 805
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2003 ACS
AB The treponemal fla operon is comprised of numerous motility-related genes; however, the initial gene of this operon, tap1, has no known function,. A recently developed system to generate specific **mutants** in Treponema denticola was utilized to det. if Tap1 was essential for motility. T. denticola tap1 and flanking DNA were identified, cloned, and sequenced, and a suicide plasmid that contained tap1 interrupted with an erythromycin resistance cassette (ermF and ermAM) was constructed. Because of potential polar effects from this cassette, a second plasmid that contained tap1 interrupted with a modified erythromycin resistance cassette that lacked the putative ermF transcription terminator was constructed. Electroporation-mediated allelic exchange incorporated the interrupted tap1 genes into the T. denticola chromosome, creating Tap1-deficient **mutants**. Reverse transcriptase PCR revealed that the erythromycin resistance cassette within tap1 did not terminate fla operon transcription in either **mutant**. Moreover, the phenotypes of the two **mutants** were indistinguishable. These **mutants** lacked motion in liq. culture, were unable to spread on agar plates, and lacked flagellar filaments as detd. by electron microscopy. Immunoblots revealed a marked redn. in detectable FlaB flagellar filament protein compared to that of wild type; however, flaB RNA was easily detectable, and transcription levels did not appear to be altered. The basis for the lack of filament protein expression is unknown. Immunoblotting also showed that the flagellar hook protein (FlgE) was synthesized in the Tap1-deficient **mutant**; however, electron microscopy revealed that the **mutant** possessed unusual elongated hooks of variable lengths. The authors propose that treponemal Tap1 is analogous to FliK, which is involved in monitoring the flagellar hook length of Salmonella **typhimurium**.
AN 1999:398627 CAPLUS
DN 131:180619
TI Insertional inactivation of Treponema denticola tap1 results in a **non-motile mutant** with elongated flagellar

hooks
AU Limberger, Ronald J.; Slivienski, Linda L.; Izard, Jacques; Samsonoff, William A.
CS David Axelrod Institute for Public Health, Wadsworth Center, New York State Department of Health, Albany, NY, 12201-2002, USA
SO Journal of Bacteriology (1999), 181(12), 3743-3750
CODEN: JOBAAY; ISSN: 0021-9193
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 38 OF 54 USPATFULL
AB A fusion protein which comprises the B subunit of the labile toxin (LT-B) of E. coli and part of the flagellin (flaA) protein of C. jejuni is antigenic and is useful for decreasing colonization in chickens by Campylobacter species. The protein is produced by E. coli cells, transformed by the plasmid pBEB into which DNA sequences encoding the novel protein have been introduced.
AN 1998:144221 USPATFULL
TI Campylobacter jejuni flagellin/Escherichia coli LT-B fusion protein
IN Meinersmann, Richard J., Lithonia, GA, United States
Khoury, Christian A., Philadelphia, PA, United States
PA The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States (U.S. government)
PI US 5837825 19981117
AI US 1997-829026 19970331 (8)
RLI Continuation of Ser. No. US 1993-150305, filed on 12 Nov 1993, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Caputa, Anthony C.
LREP Silverstein, M. Howard, Fado, John, Graeter, Janelle S.
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 803
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 39 OF 54 USPATFULL
AB Purified and isolated nucleic acid molecules are provided which encode a basal body rod protein of a strain of Campylobacter, particularly C. jejuni, or a fragment or an analog of the basal body rod protein. The nucleic acid molecules may be used to produce proteins free of contaminants derived from bacteria normally containing the FlgF or FlgG proteins for purposes of diagnostics and medical treatment. Furthermore, the nucleic acid molecules, proteins encoded thereby and antibodies raised against the proteins, may be used in the diagnosis of infection.
AN 1998:131534 USPATFULL
TI Basal body rod protein genes of campylobacter
IN Chan, Voon Loong, Toronto, Canada
Louie, Helena, Markham, Canada
PA University of Toronto, Toronto, United States (non-U.S. corporation)
PI US 5827654 19981027
AI US 1995-436748 19950508 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Portner, Ginny Allen
LREP Sim & McBurney
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 1257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 40 OF 54 USPATFULL
AB **Vaccines** are provided for **vaccinating** an animal against pathogenic bacteria, including E. coli. The invention also encompasses methods of preparing and methods of use of **vaccine** strains and compositions that result from or are used in these methods. In particular, pathogenic bacteria comprising at least one attenuating mutation selected from the group consisting of a pyrimidine pathway mutation, an iron metabolism mutation, and a colicin transport mutation which retain their immunogenicity so as to provide protective immunity are provided.
AN 1998:48228 USPATFULL
TI Bacterial **vaccines** using **vaccine** strains of pathogenic bacteria
IN Allan, Brenda J., Saskatoon, Canada
Potter, Andrew A., Saskatoon, Canada
PA University of Saskatchewan, Canada (non-U.S. corporation)
PI US 5747309 19980505
AI US 1995-418520 19950407 (8)
RLI Continuation of Ser. No. US 1993-115683, filed on 3 Sep 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-939496, filed on 4 Sep 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Minnifield, Nita
LREP Burns, Doane, Swecker & Mathis L.L.P.
CLMN Number of Claims: 83
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1596
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 41 OF 54 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB Vibrio cholerae, the bacterium that causes cholera, has a pathogenic cycle consisting of a free-swimming phase outside its host, and a sessile virulent phase when colonizing the human small intestine. We have cloned the V. cholerae homologue of the rpoN gene (encoding sigma(54)) and determined its role in the cholera pathogenic cycle by constructing an rpoN null **mutant**. The V. cholerae rpoN **mutant** is **non-motile**; examination of this **mutant** by electron microscopy revealed that it lacks a flagellum. In addition to flagellar synthesis, sigma(54) is involved in glutamine synthetase expression, Moreover, the rpoN **mutant** is defective for colonization in an infant mouse model of cholera. We present evidence that the colonization defect is distinct from the **non-motile** and Gln phenotypes of the rpoN **mutant**, implicating multiple and distinct roles of sigma(54) during the V. cholerae pathogenic cycle. RNA polymerase containing sigma(54) (sigma(54)-holoenzyme) has an absolute requirement for an activator protein to initiate transcription. We have identified three regulatory genes, flrABC (flagellar regulatory proteins ABC) that are additionally required for flagellar synthesis. The flrA and flrC gene products are sigma(54)-activators and form a flagellar transcription cascade. flrA and flrC **mutants** are also defective for colonization; this phenotype is probably independent of non-motility. An flrC constitutive mutation (M114-->I) was isolated that is independent of its cognate kinase FlrB. Expression of the constitutive FlrCM114-->I from the cholera toxin promoter resulted in a change in cell morphology, implicating involvement of FlrC in cell division. Thus, sigma(54) holoenzyme, FlrA and FlrC transcribe genes for flagellar synthesis and possibly cell division during the free-swimming phase of the V. cholerae life cycle, and some as yet unidentified gene(s) that aid colonization within the host.

AN 1998:417067 SCISEARCH
GA The Genuine Article (R) Number: ZP880
TI Distinct roles of an alternative sigma factor during both free-swimming and colonizing phases of the Vibrio cholerae pathogenic cycle
AU Klose K E; Mekalanos J J (Reprint)
CS HARVARD UNIV, SCH MED, DEPT MICROBIOL & MOL GENET, 200 LONGWOOD AVE, BOSTON, MA 02115 (Reprint); HARVARD UNIV, SCH MED, DEPT MICROBIOL & MOL GENET, BOSTON, MA 02115; HARVARD UNIV, SCH MED, SHIPLEY INST MED, BOSTON, MA 02115
CYA USA
SO MOLECULAR MICROBIOLOGY, (MAY 1998) Vol. 28, No. 3, pp. 501-520.
Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 0NE, OXON, ENGLAND.
ISSN: 0950-382X.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 73
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L20 ANSWER 42 OF 54 USPATFULL
AB Provided by the present invention are novel methods of detecting ligand interactions, as well as regents useful in the method, including DNA and host cells; and more specifically relates to novel methods for the detection of protein/protein interactions and their application in epitope mapping and the study of ligand/receptor interactions. Also provided are **vaccines** and kits comprising the expression products and host cells of the invention.
AN 97:47098 USPATFULL
TI Method of detecting ligand interactions
IN McCoy, John M., Reading, MA, United States
Lu, Zhijian, Arlington, MA, United States
PA Genetics Institute, Inc., Cambridge, MA, United States (U.S. corporation)
PI US 5635182 19970603
AI US 1994-260582 19940616 (8)
DCD 20101214
DT Utility
FS Granted
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Bugalsky, Gabriele E.
LREP Meinert, M. C.
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1935
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 43 OF 54 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB Methods of immunoprophylaxis for poultry using live Salmonella **vaccines** are increasingly gaining in importance. Methods of a simple and reliable bacteriological as well as serological differentiation between **vaccine** and field strains will be of decisive importance for the acceptance and use of live Salmonella **vaccines**. The absence of motility in Salmonella strains may be a marker fulfilling these criteria. The studies described served to examine whether virulence and the ability to inhibit other Salmonella strains could be influenced by the absence of motility in Salmonella (S.) Enteritidis and (S.) **Typhimurium**. In a cell-culture model (IEC 6) under in vitro conditions, **non-motile** transposon **mutants** (TnphoA) of S. Enteritidis and S. **Typhimurium** exhibited a clearly reduced invasion potential in comparison with the respective motile parental strain. Under in vitro conditions (nutrient broth culture), the inhibitory potential of these **non-motile**

mutants was also reduced compared to the motile original strains. In contrast, in vivo studies in a-few-days-old chickens revealed that there was no reduction of the virulence of **non-motile** **mutants** of S. Enteritidis and S. **Typhimurium** in comparison with the motile parental strain. In day-old chicks, the inhibitory potential of **non-motile** strains was significantly reduced and in some cases, had even become completely lost.

AN 97:803393 SCISEARCH
GA The Genuine Article (R) Number: YB475
TI Importance of motility of Salmonella Enteritidis and Salmonella **Typhimurium** on virulence and on the expression of the inhibition phenomenon in vitro and in vivo in SPF chickens
AU Methner U (Reprint); Barrow P A
CS BUNDESINST GESUNDHEITLICHEN VERBRAUCHERSCHUTZ & V, FACHBEREICH JENA 4, NAUMBERGER STR 96A, D-07743 JENA, GERMANY (Reprint); BUNDESINST GESUNDHEITLICHEN VERBRAUCHERSCHUTZ & V, D-07743 JENA, GERMANY
CYA GERMANY
SO BERLINER UND MUNCHENER TIERARZTLICHE WOCHENSCHRIFT, (OCT 1997) Vol. 110, No. 10, pp. 391-396.
Publisher: BLACKWELL WISSENSCHAFTS-VERLAG GMBH, KURFURSTENDAMM 57, D-10707 BERLIN, GERMANY.
ISSN: 0005-9366.
DT Article; Journal
FS AGRI
LA German
REC Reference Count: 17
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L20 ANSWER 44 OF 54 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less** **mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.
AN 96:116113 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio G., Newbury Park, CA, United States
Sadziene, Adriadna, San Antonio, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5585102 19961217
AI US 1993-124290 19930920 (8)
RLI Continuation of Ser. No. US 1991-641143, filed on 11 Jan 1991
DT Utility
FS Granted
EXNAM Primary Examiner: Sidberry, Hazel F.
LREP Arnold, White & Durkee
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 1434

L20 ANSWER 45 OF 54 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB The role of the flagellum and motility in the virulence of the marine fish pathogen Vibrio anguillarum was examined. **Non-motile mutants** were generated by transposon mutagenesis. Infectivity studies revealed that disruption of the flagellum and subsequent loss of motility correlated with an approximate 500-fold decrease in virulence when fish were inoculated by immersion in bacteria-containing water. However, the flagellar filament and motility were not required for pathogenicity following intraperitoneal **injection** of fish. The transposon-insertion site for six **mutants** was determined by cloning and sequencing of the Vibrio DNA flanking the transposon. V. anguillarum genes whose products showed strong homology to proteins with an established role in flagellum biosynthesis were identified. One of the aflagellate **mutants** had a transposon insertion in the rpoN gene of V. anguillarum. This rpoN **mutant** failed to grow at low concentrations of available iron and was avirulent by both the immersion and intraperitoneal modes of inoculation. A chemotaxis gene, cheR, was located upstream of one transposon insertion and an in-frame **deletion** was constructed in the coding region of this gene. The resulting non-chemotactic **mutant** exhibited wild-type pathogenicity when **injected** intraperitoneally into fish but showed a decrease in virulence similar to that seen for the **non-motile** aflagellate **mutants** following immersion infection. Hence, chemotactic motility is a required function of the flagellum for the virulence of V. anguillarum.
AN 96:159183 SCISEARCH
GA The Genuine Article (R) Number: TV776
TI CHEMOTACTIC MOTILITY IS REQUIRED FOR INVASION OF THE HOST BY THE FISH PATHOGEN VIBRIO-ANGUILLARUM
AU OTOOLE R; MILTON D L; WOLFWATZ H (Reprint)
CS UMEA UNIV, DEPT CELL & MOLEC BIOL, S-90187 UMEA, SWEDEN (Reprint); UMEA UNIV, DEPT CELL & MOLEC BIOL, S-90187 UMEA, SWEDEN
CYA SWEDEN
SO MOLECULAR MICROBIOLOGY, (FEB 1996) Vol. 19, No. 3, pp. 625-637. ISSN: 0950-382X.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 56
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L20 ANSWER 46 OF 54 USPATFULL
AB This invention relates to **flagella-less** strains of Borrelia and to novel methods for use of the microorganisms as **vaccines** and in diagnostic assays. Although a preferred embodiment of the invention is directed to Borrelia burgdorferi, the present invention encompasses **flagella-less** strains of other microorganisms belonging to the genus Borrelia. Accordingly, with the aid of the disclosure, **flagella-less mutants** of other Borrelia species, e.g., B. coriacei, which causes epidemic bovine abortion, B. anserina, which causes avian spirochetosis, and B. recurrentis and other Borrelia species causative of relapsing fever, such as Borrelia hermsii, Borrelia turicatae, Borrelia duttoni, Borrelia persica, and Borrelia hispanica, can be prepared and used in accordance with the present invention and are within the scope of the invention. Therefore, a preferred embodiment comprises a composition of matter comprising a substantially pure preparation of a strain of a **flagella-less** microorganism belonging to the genus Borrelia.
AN 95:66995 USPATFULL
TI **Flagella-less** borrelia
IN Barbour, Alan G., San Antonio, TX, United States
Bundoc, Virgilio, San Antonio, TX, United States

PA University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5436000 19950725
AI US 1991-641143 19910111 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Sidberry, Hazel F.
LREP Arnold, White & Durkee
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 23 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1300

L20 ANSWER 47 OF 54 USPATFULL
AB The gene encoding the TcpA pilus has been cloned. It encodes a protein useful in live, killed-cell, and synthetic **vaccines**. Protein production is enhanced by specific medium conditions.
AN 94:62217 USPATFULL
TI Cholera **vaccines**
IN Mekalanos, John J., Cambridge, MA, United States
Taylor, Ronald K., Memphis, TN, United States
PA President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation)
PI US 5330753 19940719
AI US 1992-855809 19920323 (7)
RLI Continuation of Ser. No. US 1988-188016, filed on 29 Apr 1988, now patented, Pat. No. US 5098998 which is a continuation-in-part of Ser. No. US 1987-43907, filed on 29 Apr 1987, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Cunningham, T.
LREP Fish & Richardson
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 613
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 48 OF 54 USPATFULL
AB The gene encoding the TcpA pilus has been cloned. It encodes a protein useful in live, killed-cell, and synthetic **vaccines**. Protein production is enhanced by specific medium conditions.
AN 92:23282 USPATFULL
TI Cholera **vaccines** and peptides
IN Mekalanos, John J., Framingham, MA, United States
Taylor, Ronald K., Memphis, TN, United States
PA President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation)
PI US 5098998 19920324
AI US 1988-188016 19880429 (7)
RLI Continuation-in-part of Ser. No. US 1987-43907, filed on 29 Apr 1987, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Cunningham, T.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 609
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 49 OF 54 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB We have developed a chromatographic method for isolating bacterial

cells that are motile but nonchemotactic. Separation of strains of different phenotype occurs along a thin horizontal channel between two stirred chambers, the lower one containing a chemical attractant. The channel is bounded above and below by rigid filters, permeable to the attractant but not to the bacteria. The lower part of the channel is occupied by a porous plate comprising a vertical array of capillary tubes. An aliquot of cells is **injected** at one end of the channel and eluted by continuous flow of cell-free medium. Fluid leaving the other end of the channel is collected in a fraction collector. Cells that respond to the gradient swim to the bottom of the channel where they are retarded by the capillary array. **Nonmotile** cells sink to the bottom and are trapped in a similar manner. Motile cells that fail to respond to the gradient diffuse across the full height of the channel and, thus, travel through the apparatus at the average velocity of the eluent. When mixed with wild-type cells at a ratio of 1:1000 and subjected to an aspartate gradient, aspartate-blind cells were recovered quantitatively. The enrichment was almost-equal-to 200 to 1. The wild-type cells that survived the selection had a poorly motile phenotype.

AN 91:513830 SCISEARCH
GA The Genuine Article (R) Number: GF101
TI SELECTION OF MOTILE NONCHEMOTACTIC **MUTANTS** OF ESCHERICHIA-COLI BY FIELD-FLOW FRACTIONATION
AU BERG H C (Reprint); TURNER L
CS ROWLAND INST SCI INC, CAMBRIDGE, MA, 02142 (Reprint); HARVARD UNIV, DEPT CELLULAR & DEV BIOL, CAMBRIDGE, MA, 02138
CYA USA
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1991) Vol. 88, No. 18, pp. 8145-8148.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 21
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L20 ANSWER 50 OF 54 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AB A **nonmotile mutant** of Borrelia burgdorferi, the etiologic agent of Lyme disease, was isolated and characterized. The **mutant** was compared with the wild-type predecessor as well as with a motile back-revertant of the same genetic background. The **mutant** lacked, by morphologic, biochemical, and immunologic criteria, the major structural protein of flagella, flagellin. This mutation was not associated with major DNA rearrangements or with failure of transcription. An apparent consequence of a loss of flagella was reduced ability to penetrate human endothelial cell layers in vitro. In another assessment of functional significance, the **flagella-less mutant** was equal if not superior to flagella-bearing, isogenic isolates when examined in an enzyme-linked immunosorbent assay for anti-B. burgdorferi antibodies in the sera of Lyme disease patients. These studies of a **mutant**, the first among pathogenic Borrelia spp. to be characterized, indicate that the flagellum and motility it confers play a role in B. burgdorferi's invasion of human tissues. A **flagella-less** B. burgdorferi may be useful as the basis of a more specific immunoassay and a **vaccine** for protection against Lyme disease.

AN 91:375345 SCISEARCH
GA The Genuine Article (R) Number: FU443
TI A **FLAGELLA-LESS MUTANT** OF BORRELIA-BURGDORFERI - STRUCTURAL, MOLECULAR, AND INVITRO FUNCTIONAL-CHARACTERIZATION
AU SADZIENE A; THOMAS D D; BUNDOC V G; HOLT S C; BARBOUR A G (Reprint)
CS UNIV TEXAS, HLTH SCI CTR, DEPT MED, DIV INFECT DIS, SAN ANTONIO, TX, 78284; UNIV TEXAS, HLTH SCI CTR, DEPT MICROBIOL, SAN ANTONIO, TX, 78284; VILNIUS EXPTL & CLIN MED RES INST, VILNIUS 23200, USSR; WAKE FOREST UNIV, BOWMAN GRAY SCH MED, DEPT MICROBIOL & IMMUNOL, WINSTON SALEM, NC, 27103;

UNIV TEXAS, HLTH SCI CTR, DEPT PERIODONT, SAN ANTONIO, TX, 78284
CYA USA; USSR
SO JOURNAL OF CLINICAL INVESTIGATION, (1991) Vol. 88, No. 1, pp. 82-92.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 43
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L20 ANSWER 51 OF 54 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB **Nonmotile** flagellated (mot) and nonflagellated (fla) **mutants** of Salmonella **typhimurium** LT-2 were isolated from a collection of **mutants** with random Tn10-insertion mutations. Both classes of **mutants** were resistant to infection by the flagellotropic bacteriophage .chi.. The nonflagellated (fla::Tn10) **mutants** did not react with H antigen-specific antisera and did not possess flagella when examined by electron microscopy, and sheared-cell extracts were devoid of flagellin. The **nonmotile** (mot::Tn10) **mutants** reacted with H-specific antisera and expressed paralyzed flagella that were indistinguishable from wild-type flagella. The Tn10 insertions in strain LT-2 were mapped to loci in regions II (flh and mot) and III (fli) of the flagellar genes, and the mutations were transduced into the mouse-virulent S. **typhimurium** strains SR-11 and SL1344. Lack of motility reduced the ability of S. **typhimurium** to invade Henle cells in vitro, yet the virulence in mice of the **nonmotile** **mutants** of SR-11 and SL1344 was unaffected by the inactivity or loss of flagella. Wild-type SR-11 had a 50% lethal dose (LD50) in BALB/c mice following oral (p.o.) challenge of 2.4 .times. 104 CFU. The p.o. LD50 of the SR-11 fli-8007::Tn10 **mutant** was 4.5 .times. 104 CFU. The mot-8008::Tn10 mutation in SR-11 conferred paralyzed flagella and increased the p.o. LD50 in mice to 2.2. .times. 105 CFU, but this was not statistically significant. A similar increase in the p.o. LD50 was observed when the SL1344 mot-8008::Tn10 **mutant** was tested in mice. Wild-type SR-11 and the isogenic nonflagellated and **nonmotile** **mutants** were equally virulent in mice challenged via intraperitoneal **injection**.
AN 1990:90355 BIOSIS
DN BA89:49706
TI SALMONELLA-**TYPHIMURIUM** **MUTANTS** LACKING FLAGELLA OR MOTILITY REMAIN VIRULENT IN BALB-C MICE.
AU LOCKMAN H A; CURTISS R III
CS DEP. BIOL., WASHINGTON UNIV., ST. LOUIS, MO. 63130.
SO INFECT IMMUN, (1990) 58 (1), 137-143.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

L20 ANSWER 52 OF 54 USPATFULL
AB Monoclonal antibodies specific to serotypic determinants on the flagella of a microorganism and found to be useful in inhibiting motility.
AN 88:60607 USPATFULL
TI Protective antibodies to serotypic determinants of flagellar antigens
IN Rutherford, Richard L., San Rafael, CA, United States
Collins, Michael S., Richmond, CA, United States
Harmon, Richard C., Walnut Creek, CA, United States
PA Miles Laboratories, Inc., Elkhart, IN, United States (U.S. corporation)
PI US 4772464 19880920
AI US 1985-761737 19850801 (6)
DT Utility
FS Granted
EXNAM Primary Examiner: Moskowitz, Margaret
LREP Giblin, James A.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1

DRWN No Drawings
LN.CNT 484
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 53 OF 54 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB In the presence of luminol, resident and thioglycolate-induced and **immunized** macrophages emitted chemiluminescence more efficiently when the cells were exposed to living S. **typhimurium** than when they were exposed to the same bacterium killed by UV light or heat. This phenomenon was observed whether or not the bacterium was opsonized. The different response to living and killed bacteria was also found with Escherichia coli, Pseudomonas aeruginosa, Proteus morganii and Enterobacter aerogenes but not with Shigella sonnei, Klebsiella pneumoniae and Propionibacterium acnes. Macrophages evidently respond better to living, motile bacteria than to **nonmotile** or killed bacteria. The experimental results obtained with motility **mutants** of S. **typhimurium**, E. coli and P. aeruginosa confirm that macrophages exposed to the motile bacteria emit chemiluminescence more efficiently and ingest the motile bacteria at a much faster rate than the **nonmotile** bacteria.
AN 1981:295887 BIOSIS
DN BA72:80871
TI PHAGOCYTIC AND CHEMI LUMINESCENT RESPONSES OF MOUSE PERITONEAL MACROPHAGES TO LIVING AND KILLED SALMONELLA-**TYPHIMURIUM** AND OTHER BACTERIA.
AU TOMITA T; BLUMENSTOCK E; KANEGASAKI S
CS INST. OF MED. SCI., UNIV. OF TOKYO, 4-6-1, SHIROKANEDAI, MINATO-KU, TOKYO, 108, JAPAN.
SO INFECT IMMUN, (1981) 32 (3), 1242-1248.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

L20 ANSWER 54 OF 54 USPATFULL
AB A new antibiotic, Gp-3, being useful as a medicament and veterinary drug for inhibiting the growth of gram-positive pathogenic microorganism, and a process for preparing the same, being characterized by cultivating a Gp-3-producing strain of microorganism belonging to the Genus Bacillus in an aqueous nutrient medium under aerobic conditions.
AN 75:32135 USPATFULL
TI Antibiotic GP-3 and production thereof by cultivation of bacillus cereus
IN Shoji, Jun'Ichi, Osaka, Japan
Mayama, Mikao, Osaka, Japan
Matsuura, Shinzo, Itami, Japan
Matsumoto, Kouichi, Toyonaka, Japan
Wakisaka, Yoshiharu, Takarazuka, Japan
PA Shionogi & Company, Ltd., Japan (non-U.S. corporation)
PI US 3890436 19750617
AI US 1974-461434 19740415 (5)
PRAI JP 1973-47412 19730425
DT Utility
FS Granted
EXNAM Primary Examiner: Meyers, Albert T.; Assistant Examiner: Stephens, Daren M.
LREP Wenderoth, Lind & Ponack
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 366
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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7 ANSWER 1 OF 4 LIFESCI , COPYRIGHT 2003 CSA
AB Invasiveness of Salmonella **typhi** was investigated. At first, the author introduced Tn5 into the chromosome of a wild-type S. **typhi** strain, GIFU 10007, and screened the independent Tn5 insertion mutants for noninvasive (Inv super(-)) strains. During the first half of this work, they obtained 4 Inv super(-) strains from 1,338 independent Tn5 mutants. The four were either **nonflagellate** (Fla super(-)), nonmotile (Mot super(-)), or nonchemotactic (Che super(-)). They then isolated more Fla super(-), Mot super(-), or Che super(-) mutants and examined the invasiveness of these mutants. Sixty-three spontaneous or Tn5 insertion motility mutants, i.e., Fla super(-), Mot super(-), or Che super(-), were independently isolated from the wild-type strain GIFU 10007; all of them were noninvasive. Motile revertants isolated from some of these mutants showed the same invasiveness as the parent strain.
AN 88:39824 LIFESCI
TI Intact motility as a Salmonella **typhi** invasion-related factor.
AU Liu, Shu-Lin; Ezaki, T.; Miura, H.; Matsui, K.; Yabuuchi, E.
CS Dep. Microbiol., Gifu Univ. Sch. Med., 40 Tsukasa-machi, Gifu 500, Japan
SO INFECT. IMMUN., (1988) vol. 56, no. 8, pp. 1967-1973.
DT Journal
FS J
LA English
SL English

L27 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Invasiveness of Salmonella **typhi** was investigated. At first, we introduced Tn5 into the chromosome of a wild-type S. **typhi** strain, GIFU 10007, and screened the independent Tn5 insertion mutants for noninvasive (Inv-) strains. During the first half of this work, we obtained 4 Inv- strains from 1,338 independent Tn5 mutants. The four were either **nonflagellate** (Fla-), monmotile (Mot-), or nonchemotactic (Che-). We then isolated more Fla-, Mot-, or Che- mutants and examined the invasiveness of these mutants. Sixty-three spontaneous or Tn5 insertion motility mutants, i.e., Fla-, Mot-, or Che-, were independently isolated from the wild-type strain GIFU 10007; all of them were noninvasive. Motile revertants isolated from some of these mutants showed the same invasiveness as the parent strain. P22-mediated transductional crosses were carried out between some of the motility mutants (as the recipients) and the Fla- reference strains of S. typhimurium with known deletion sites on the genome (as the donors). The mutational sites of the S. **typhi** mutants were assigned almost evenly to the three flagellar gene regions (regions I, II, and III) of S. typhimurium. The invasiveness of the motile recombinants obtained from the transduction assays was examined. The restoration of intact motility resulted in the restoration of invasiveness. Thus, we conclude that intact motility is an invasion-related factor of S. **typhi**. The relationship of Vi antigen to the invasiveness of S. **typhi** was also studied. Vi-negative mutnts with intact motility remained invasive, whereas all 63 Inv- spontaneous or Tn5 mutants were Vi positive. Therefore, Vi antigen was not related to the invasiveness of S. **typhi**.
AN 1988:417215 BIOSIS
DN BA86:79827
TI INTACT MOTILITY AS A SALMONELLA-**TYPHI** INVASION-RELATED FACTOR.
AU LIU S-L; EZAKI T; MIURA H; MATSUI K; YABUUCHI E
CS DEP. MICROBIOLOGY, GIFU UNIV. SCH. MED., 40 TSUKASA-MACHI, GIFU 500, JAPAN.
SO INFECT IMMUN, (1988) 56 (8), 1967-1973.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

L27 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB The double-immunodiffusion technique and sodium dodecyl

sulfate-polyacrylamide electrophoresis were used to demonstrate the presence of flagellin-like material strongly attached to ribosomes of S. **typhi** Ty 2. This flagellin-like material contaminating the ribosome preparation interfers with the induction of [rabbit] antiribosome serum, promoting the formation of antisera reacting either only with flagellin or in some cases with flagellin and ribosomes, but giving a very weak reaction with the latter. The interference is also observed when purified ribosomes from a **nonflagellated** mutant of S. **typhi** (S. **typhi** O-901) mixed with purified S. **typhi** Ty 2 flagellin are utilized as antigens. The antirosome sera obtained with ribosomes from S. **typhi** O-901 have a considerably higher titer than those that are interfered with. These sera were able to react with ribosomes obtained from several related species and did not react with flagella-derived flagellin of S. **typhi** Ty 2.

AN 1978:208868 BIOSIS
DN BA66:21365
TI IMMUNOGENIC CAPACITY OF RIBOSOMES OF SALMONELLA-**TYPHI** INTERFERED WITH A FLAGELLIN-LIKE MATERIAL CONTAMINANT.
AU COFRE G; CALDERON I; MORA G C
CS LAB. MICROBIOL., INST. CIENC. BIOL., UNIV. CATOL. CHILE, SANTIAGO, CHILE.
SO INFECT IMMUN, (1978) 20 (1), 161-166.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

L27 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1974:42248 BIOSIS
DN BR10:42248
TI TRANSDUCTION AS A METHOD FOR DETECTING LATENT PHASES OF H ANTIGEN IN **NONFLAGELLATE** FORMS OF SALMONELLA-SPP.
AU LALKO J
SO Exp. Med. Microbiol. (Engl. Transl.), (1972 (1973)) 24 (4), 286-292.
CODEN: EXMMAV. ISSN: 0014-486X.
FS BR; OLD
LA Unavailable

=>

42 ANSWER 2 OF 2 LIFESCI COPYRIGHT 2003 CSA

AB Sequencing of the hypervariable regions of genes H1-d and H1-j , and hybridization of such genes, after amplification by the polymerase chain reaction, with oligonucleotide probes specific for the deleted segment or for the sequence produced by the recombination confirmed that all the j alleles have the postulated **deletion**. By applying the polymerase chain reaction to study S. **typhi** isolates from Jakarta, not previously tested in respect to flagellar antigen, we showed that gene H1-j was nearly as common as H1-d in these isolates.

ACCESSION NUMBER: 89:50389 LIFESCI

TITLE: Intragenic recombination in a **flagellin** gene: Characterization of the H1-j gene of Salmonella **typhi** .

AUTHOR: Frankel, G.; Newton, S.M.C.; Schoolnik, G.K.; Stocker, B.A.D.

CORPORATE SOURCE: Dep. Microbiol. and Immunol., Stanford Univ. Sch. Med., Stanford, CA 94305-4520, USA

SOURCE: EMBO J., (1989) vol. 8, no. 10, pp. 3149-3152.

DOCUMENT TYPE: Journal

FILE SEGMENT: J; N; G

LANGUAGE: English

SUMMARY LANGUAGE: English

41 ANSWER 63 OF 79 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1992:280511 BIOSIS
DN BA94:5161
TI CONSTRUCTION OF A GENETICALLY DEFINED SALMONELLA-**TYPHI** TY2 AROA AROC MUTANT FOR THE ENGINEERING OF A CANDIDATE ORAL TYPHOID-TETANUS VACCINE.
AU CHATFIELD S N; FAIRWEATHER N; CHARLES I; PICKARD D; LEVINE M; HONE D; POSADA M; STRUGNELL R A; DOUGAN G
CS VACCINE RES. UNIT, MEDEVA GROUP RES., WELLCOME RES. LABS, LANGLEY COURT, BECKENHAM, KENT BR3 3BS, UK.
SO VACCINE, (1992) 10 (1), 53-60.
CODEN: VACCDE. ISSN: 0264-410X.
FS BA; OLD
LA English

41 ANSWER 68 OF 79 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 34
AN 89:50389 LIFESCI
TI Intragenic recombination in a flagellin gene: Characterization of the H1-j gene of Salmonella **typhi** .
AU Frankel, G.; Newton, S.M.C.; Schoolnik, G.K.; Stocker, B.A.D.
CS Dep. Microbiol. and Immunol., Stanford Univ. Sch. Med., Stanford, CA 94305-4520, USA
SO EMBO J., (1989) vol. 8, no. 10, pp. 3149-3152.
DT Journal
FS J; N; G
LA English
SL English

29 ANSWER 1 OF 9 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 1

AB Salmonellae can exist in an asymptomatic carrier state in the human gallbladder. Individuals with gallstones are more likely to become typhoid carriers, and antibiotic treatments are often ineffectual against Salmonella enterica serovar **Typhi** in carriers with gallstones. Therefore, we hypothesized that Salmonella spp. form biofilms on the surfaces of gallstones, where the bacteria are protected from high concentrations of bile and antibiotics. A number of methods were utilized to examine biofilm formation on human gallstones and glass coverslips in vitro, including confocal, light, and scanning electron microscopy. In our assays, salmonellae formed full biofilms on the surfaces of gallstones within 14 days and appeared to excrete an exopolysaccharide layer that bound them to the surfaces and to other bacteria. Efficient biofilm formation on gallstones was dependent upon the presence of bile, as a biofilm did not form on gallstones within 14 days in Luria-Bertani broth alone. The biofilms formed by a Salmonella enterica serovar **Typhi** Vi antigen mutant, as well as strains with mutations in genes that eliminate production of four different fimbriae, were indistinguishable from the biofilms formed by the parents. Mutants with an incomplete O-antigen, mutants that were **nonmotile**, and mutants deficient in quorum sensing were unable to develop complete biofilms. In addition, there appeared to be selectivity in salmonella binding to the gallstone surface that did not depend on the topology or surface architecture. These studies should aid in the understanding of the Salmonella carrier state, an important but underresearched area of typhoid fever pathogenesis. If the basis of carrier development can be understood, it may be possible to identify effective strategies to prevent or treat this chronic infection.

AN 2002:91239 LIFESCI

TI Biofilm Formation and Interaction with the Surfaces of Gallstones by Salmonella spp.

AU Prouty, A.M.; Schwesinger, W.H.; Gunn, J.S.*

CS Department of Microbiology, MC 7758, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900.; E-mail: gunnj@uthscsa.edu

SO Infection and Immunity [Infect. Immun.], (20020500) vol. 70, no. 5, pp. 2640-2649.
ISSN: 0019-9567.

DT Journal

FS J

LA English

SL English

L29 ANSWER 2 OF 9 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 2

AB Salmonella **typhi** is the etiologic agent of human typhoid. During infection, S. **typhi** adheres to and invades epithelial and M cells that line the distal ileum. To survive in the human host, S. **typhi** must overcome numerous complex extracellular and intracellular environments. Since relatively little is known about S. **typhi** pathogenesis, studies were initiated to identify S. **typhi** genes involved in the early steps of interaction with the host and to evaluate the environmental regulation of these genes. In the present study, TnphoA mutagenesis was used to study these early steps. We isolated 16 Salmonella **typhi** TnphoA mutants that were defective for both adherence and invasion of the human small intestinal epithelial cell line Int407. Twelve of sixteen mutations were identified in genes homologous to the S. typhimurium invG and prgH genes, which are known to be involved in the type III secretion pathway of virulence proteins. Two additional insertions were identified in genes sharing homology with the cpxA and damX genes from Escherichia coli K-12, and two uncharacterized invasion-deficient mutants were **nonmotile**. Gene expression of TnphoA fusions was examined in response to environmental stimuli. We found that the cpxA, invG, and prgH genes were induced when grown under conditions of high osmolarity (0.3 M NaCl). Expression of invG and prgH genes was optimal at pH 6.5 and strongly reduced at low pH (5.0).

Transcription of both invG and prgH TnphoA gene fusions was initiated during the late logarithmic growth phase and was induced under anaerobic conditions. Finally, we show that both invG and prgH genes appear to be regulated by DNA supercoiling, a mechanism influenced by environmental factors. These results are the first to demonstrate that in S. **typhi**, (i) the prgH and cpxA genes are osmoregulated, (ii) the invG gene is induced under low oxygen conditions, (iii) the invG gene is pH regulated and growth phase dependent, and (iv) the prgH gene appears to be regulated by DNA supercoiling. Since our experimental conditions were designed to mimic the in vivo environmental milieu, our results suggest that specific environmental conditions act as signals to induce the expression of S. **typhi** invasion genes.

AN 1998:59597 LIFESCI
TI Environmental regulation of Salmonella **typhi** invasion-defective mutants
AU Leclerc, G.J.; Tartera, C.; Metcalf, E.S.
CS Department of Microbiology and Immunology, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799, USA
SO Infect. Immun., (19980200) vol. 66, no. 2, pp. 682-691.
ISSN: 0019-9567.
DT Journal
FS G; J
LA English
SL English

L29 ANSWER 3 OF 9 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 3
AB The large antigenic diversity (over 2,300 serotypes) expressed by Salmonella strains can probably be observed at the genetic level. The phase 1 flagellin genetic was amplified, and the amplified fragment was cleaved with a mixture of both endonucleases TaqI and ScaI. The restriction patterns observed allowed differentiation of flagellar types b, i, d, j, l,v, and z10. Flagellar group g (g,m, g,p, or g,m,s) could be differentiated from the other flagellar types. Flagellar types r and e,h could not be separated, although they could be distinguished from the other flagellar types studied. Practical applications of flagellar gene restriction are the distinction between serotype Gallinarum-Pullorum, which carries a cryptic gene for flagellar type g,m, and **nonmotile** Vi-negative variants of serotype **Typhi**, and the tentative assignation of **nonmotile** variants of Salmonella serotypes to a flagellar type.
AN 93:68043 AGRICOLA
DN IND93045164
TI Differentiation of Salmonella phase 1 flagellar antigen types by restriction of the amplified fliC gene.
AU Kilger, G.; Grimont, P.A.D.
CS Institut Pasteur, Paris, France
AV DNAL (QR46.J6)
SO Journal of clinical microbiology, May 1993. Vol. 31, No. 5. p. 1108-1110
Publisher: Washington, D.C. : American Society for Microbiology.
CODEN: JCMIDW; ISSN: 0095-1137
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L29 ANSWER 4 OF 9 LIFESCI COPYRIGHT 2003 CSA
AB Invasiveness of Salmonella **typhi** was investigated. At first, the author introduced Tn5 into the chromosome of a wild-type S. **typhi** strain, GIFU 10007, and screened the independent Tn5 insertion mutants for noninvasive (Inv super(-)) strains. During the first

half of this work, they obtained 4 Inv super(-) strains from 1,338 independent Tn5 mutants. The four were either nonflagellate (Fla super(-)), **nonmotile** (Mot super(-)), or nonchemotactic (Che super(-)). They then isolated more Fla super(-), Mot super(-), or Che super(-) mutants and examined the invasiveness of these mutants. Sixty-three spontaneous or Tn5 insertion motility mutants, i.e., Fla super(-), Mot super(-), or Che super(-), were independently isolated from the wild-type strain GIFU 10007; all of them were noninvasive. Motile revertants isolated from some of these mutants showed the same invasiveness as the parent strain.

AN 88:39824 LIFESCI
TI Intact motility as a Salmonella **typhi** invasion-related factor.
AU Liu, Shu-Lin; Ezaki, T.; Miura, H.; Matsui, K.; Yabuuchi, E.
CS Dep. Microbiol., Gifu Univ. Sch. Med., 40 Tsukasa-machi, Gifu 500, Japan
SO INFECT. IMMUN., (1988) vol. 56, no. 8, pp. 1967-1973.
DT Journal
FS J
LA English
SL English

L29 ANSWER 5 OF 9 LIFESCI COPYRIGHT 2003 CSA
AB A semisolid selective-motility enrichment medium for the isolation of salmonellae from fecal specimens was developed which was based on Rappaport enrichment broth. During a 7-year period more than 30,000 stool samples were tested. The medium showed a high specificity (95.1%) and sensitivity (80.3%) when compared with MacConkey agar, SS agar, and brilliant green agar (after Selenite-F Enrichment (BBL Microbiology Systems)). Furthermore, our isolation rate of Salmonella species from fecal samples showed an increase of 22,3% when this semisolid medium was added to the routine culture media. Growth could easily be interpreted. The medium has a bias toward the isolation of S. **paratyphi** B, but it is unsatisfactory for detecting the **nonmotile** strains S. **typhi** and S. paratryphi . A.

AN 84:19865 LIFESCI
TI Semisolid selective-motility enrichment medium for isolation of salmonellae from fecal specimens.
AU Goossens, H.; Wauters, G.; de Boeck, M.; Janssens, M.; Butzler, J.-P.
CS Dep. Microbiol., St. Pieters Univ. Hosp., B-1000 Brussels, Belgium
SO J. CLIN. MICROBIOL., (1984) vol. 19, no. 6, pp. 940-941.
DT Journal
FS J; A
LA English
SL English

L29 ANSWER 6 OF 9 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 4
AB A total of 21 cases of laboratory-acquired typhoid fever associated with teaching and proficiency tests occurred in the United States during a 33-month period, prompting a search for less virulent strains of S. **typhi** which would be suitable for teaching purposes. Two strains were evaluated which are reported to have reduced virulence for mice. Strain Ty21a is a genetically constructed mutant that lacks the enzyme UDP-glucose-4-epimerase. This strain has reduced virulence for humans if grown under special laboratory conditions (in the presence of 0.1% D-galactose) and has been evaluated as a candidate for use as a live, oral vaccine. Strain H901 was originally isolated in Russia in 1918. It has not been tested in humans, but its **nonmotile** variant, O901, has been found to be somewhat less virulent for humans; however, it can cause infection with doses of 10 super(7) organisms. Neither strain can be recommended unequivocally for teaching purposes; instead, the advantages and disadvantages of each must be considered. Both strains have been deposited in the American Type Culture Collection (Ty21a = ATCC 33459 = CDC 2861-79; H901 = ATCC 33458 = CDC 2862-79).

AN 82:87767 LIFESCI
TI Evaluation of two Salmonella **typhi** strains with reduced

SWITZERLAND (DIST. IN U.S.A. BY ALBERT J. PHIEBIG, WHITE PLAINS, N.Y.).
(1971) 79-86.
FS BR; OLD
LA Unavailable

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